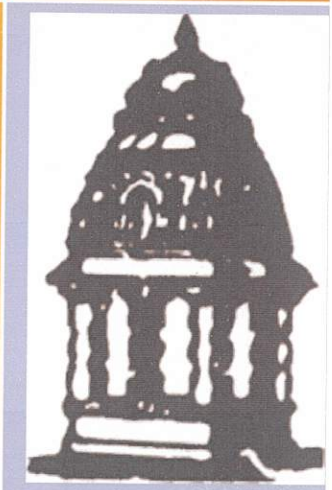
RUDRAPRASAD CONSULTANTS

134

NAME OF WORK: AUGMENTATION OF WATER SUPPLY THROUGH BOREWELL, NETWORK OF PIPELINES AND GROUND WATER RECHARGE FACILITIES IN VARIOUS LAYOUTS IN WARD NO-05 AND WARD NO-06 BYATARAYANAPURA SUB DIVISION

DETAILED PROJECT REPORT

SUBMITTED TO B.B.M.P, BANGALORE



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BRUHAT BENGALURU MAHANAGARA PALIKE

Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various layouts in Ward No-05 and Ward No-06 Byatarayanapura Sub Division

DETAILED PROJECT REPORT

RUDRAPRASAD CONSULTANTS
Structural Engineers, Architects &
Project management Consultants
No.3, 7th Main,

Malleswaram Bengaluru-560003

RUDRAPRASAD CONSULTANTS BANGALORE

ABSTRACT

BRUHAT BANGALORE MAHANAGARA PALIKE

Sl No	NAME OF WORK
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division

Abstract

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
1	Geophysical investigation of site for sinking Borewell for supplying drinking water to the habitation either through the Hand pump, MWS of P.W.S.S by vertical electrical sounding by adopting Venner or Schlumberger's method, including reconnaissance survey of geological formation, Gerophysical investigation of existing Ground Wate in the vicinity, its quality & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 meter in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site., engaging techinical personal and labour required etccomplete as per specifications and directions of Engineer in charge of work.	Each BW	36.00	3881.04	139718.00
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each BW	6.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each BW	6.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each BW	6.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each BW	6.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Each BW	6.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Each BW	6.00		
2	**Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars and cap etc.,) ,with all lead and lift, loading, unloading and labour charges etc., complete as per specifications and directions of Engineer in charge of work.(0 to 50m)**	Rmtr	**1800.00**	**357.41**	**643338.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	300.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	300.00		
2a	**50 to 100**	**Rmtr**	**1800.00**	**455.26**	**819468.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	300.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	300.00		
2b	**100 to 150**	**Rmtr**	**1800.00**	**469.68**	**845424.00**

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr			
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr			
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr			
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr			
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr			
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr			
2c	**150 to 200**	**Rmtr**	**1800.00**	**552.08**	**993744.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	300.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	300.00		
2d	**200 to 250**	**Rmtr**	**1800.00**	**653.02**	**1175436.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	300.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	300.00		
2e	**250 to 300**	**Rmtr**	**1800.00**	**721.00**	**1297800.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	300.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	300.00		
2f	**300 to 350**	**Rmtr**	**1800.00**	**849.75**	**1529550.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	300.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	300.00		
2g	**350 to 400**	**Rmtr**	**1800.00**	**927.00**	**1668600.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	300.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	300.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	300.00		
3	**Supply of ISI mark 175 mm nominal bore medium black ERW casing pipe of 5 mm thick black electric resistance continuous welded mild steel tube material confirming to IS 1387 / 1993 & manufactured from hot rolled steel skelp / stripes in random length of 4 to 7 mts both ends threaded confirming to IS 554 / 1985, one end fixed with a socket and the other and with a plastic protection end (including of all taxes) ,with all lead and lift, loading, unloading and labour charges etc., complete as per specifications and directions of Engineer in charge of work.**	**Rmtr**	**2160.00**	**1364.75**	**2947860.00**

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	360.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	360.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	360.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	360.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	360.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	360.00		
4	**Providing and fixing 250mm dia PVC Pipe and as per specification complete as per specifications and directions of Engineer in charge of work.**	**m**	**360.00**	**2203.39**	**793221.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	m	60.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	m	60.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	m	60.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	m	60.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	m	60.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	m	60.00		
5	**175mm dia M.S. Casing capcomplete as per specifications and directions of Engineer in charge of work.**	**Each**	**36.00**	**103.00**	**3708.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each	6.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each	6.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each	6.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each	6.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Each	6.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Each	6.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
6	**Fabrication supplying and mounting MS box of 16 SWG suitable for floor /wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primer paint and finally finished with approved colour enamelled metal paint etc., complete box of 21600 sqcm with all lead and lift, loading, unloading and labour charges etc., complete as per specifications and directions of Engineer in charge of work.**	**Sq.cm**	**792000.00**	**0.35**	**277200.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Sq.cm	132000.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Sq.cm	132000.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Sq.cm	132000.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Sq.cm	132000.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Sq.cm	132000.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Sq.cm	132000.00		
7	**Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI union confirming to IS 1239-II, 1991 with latest amendments if any. complete as per specifications and directions of Engineer in charge of work.**	**No**	**36.00**	**180.25**	**6489.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	No	6.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura	No	6.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura	No	6.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura	No	6.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura	No	6.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura	No	6.00		
8	**Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI hexagonal nipple confirming to IS 1239-II, 1991 with latest amendments if any complete as per specifications and directions of Engineer in charge of work.**	**No**	**108.00**	**144.20**	**15574.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	No	18.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura	No	18.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura	No	18.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura	No	18.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura	No	18.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura	No	18.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
9	**Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI elbow confirming to IS 1239-II, 1991 with latest amendments if any.complete as per specifications and directions of Engineer in charge of work.**	**No**	**108.00**	**180.25**	**19467.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	No	18.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura	No	18.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura	No	18.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura	No	18.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura	No	18.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura	No	18.00		
10	**Labour charges for erection as new /repaired submercible pumpset allong with GI pipe (32/50mm) cable (new submercible pumpset if required will be supplied by the department free of cost and released pumpset shoud be handed over to department including transportation (Each lenth =6.00) complete as per specifications and directions of Engineer in charge of work.**	**Job**	**36.00**	**5819.50**	**209502.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Job	6.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Job	6.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Job	6.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Job	6.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Job	6.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Job	6.00		
11	**Labour charges for Erection of outdoor type panel board and meter board units with all necessary materials and labour tools and equipments including providing cement concrete foundation bed etc., complete. as per specifications, with testing complete as per specifications and directions of Engineer in charge of work.**	**Job**	**36.00**	**1233.94**	**44422.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Job	6.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Job	6.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Job	6.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Job	6.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Job	6.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Job	6.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
12	**Supplying and laying of LT UG cable having aluminum conductor PVC insulated sheathed, galvanized, steel wire/steel tape armoured cable with PVC outer sheathing 1.1 KV class 4 core 16 sqmm cable complete as per specifications and directions of Engineer in charge of work.**	**Rmtr**	**1620.00**	**150.00**	**243000.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	270.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	270.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	270.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	270.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	270.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	270.00		
13	**Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe/ stone pipe / on wall/ on pole as required 6 sqmm to 16 sqmm. complete as per specifications and directions of Engineer in charge of work.**	**Rmtr**	**1620.00**	**11.88**	**19246.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	270.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	270.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	270.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	270.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	270.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	270.00		
14	**Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete cutting road surfacescomplete as per specifications and directions of Engineer in charge of work.**	**Mtr**	**1620.00**	**82.00**	**132840.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Mtr	270.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Mtr	270.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Mtr	270.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Mtr	270.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Mtr	270.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Mtr	270.00		
15	**Supplying and fixing of class A GI pipe on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV class 40mm complete as per specifications and directions of Engineer in charge of work.**	**Mtr**	**144.00**	**335.00**	**48240.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Mtr	24.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Mtr	24.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Mtr	24.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Mtr	24.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Mtr	24.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Mtr	24.00		
16	**Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 12 mm dia, complete as per specifications and directions of Engineer in charge of work.**	**Nos**	**36.00**	**3741.99**	**134712.00**

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Nos	6.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Nos	6.00		
17	**Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class 16sqmmUG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc.complete as per specifications and directions of Engineer in charge of work.**	**Nos**	**36.00**	**511.91**	**18429.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Nos	6.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Nos	6.00		
18	**Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc.,Size 20 x 20 x 2.5 inches with all lead and lift, loading, unloading and labour charges etc., complete as per specifications and directions of Engineer in charge of work.**	**Nos**	**36.00**	**292.00**	**10512.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Nos	6.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Nos	6.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
19	**Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 20 HP 40 Stagecomplete as per specifications and directions of Engineer in charge of work.**	**Nos**	**24.00**	**90595.00**	**2174280.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
20	**Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 17.5 HP 30 Stagecomplete as per specifications and directions of Engineer in charge of work.**	**Nos**	**12.00**	**72126.00**	**865512.00**

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Nos	6.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Nos	6.00		
21	**Providing, laying & joining GI pipes confirming to IS specification of approved make with fittings such as collars bends elbows tees nipples plugs with cuts threads using white lead & threads for joints wherever necessary as per direction including all lead & lift etc,. complete 'A' grade(excluding cost of fittings) 50mm dia GI pipe B Class complete as per specifications and directions of Engineer in charge of work.**	**Rmtr**	**2124.00**	**2861.34**	**6077487.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	354.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	354.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	354.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Rmtr	354.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	354.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Rmtr	354.00		
22	**Supplying of submersible pump cable 1X3X6 Sqmm complete as per specifications and directions of Engineer in charge of work.**	**Mtr**	**26568.00**	**205.00**	**5446440.00**

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Mtr	4428.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Mtr	4428.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Mtr	4428.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Mtr	4428.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Mtr	4428.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Mtr	4428.00		
23	**Supplying & delivery at site brand new / Essen / lotus sunsines/Adarsh/Gk controls best indigenous make combine energy meter-cum-control panel board unit of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph,50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key ribs should be provided inside the door canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz,380/440 AC supply shall be consisted etc., completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above Up to 20HP with star delta starter (MR) complete as per specifications and directions of Engineer in charge of work.**	**Nos**	**36.00**	**21000.00**	**756000.00**

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Nos	6.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Nos	6.00		
24	**Supplying & delivery of brand 50mm Gate Valve. complete as per specifications and directions of Engineer in charge of work.**	**Each**	**36.00**	**1225.70**	**44126.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each	6.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura	Each	6.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura	Each	6.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura	Each	6.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura	Each	6.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura	Each	6.00		
25	**Supplying & delivery of brand 50mm Non Return Valve. complete as per specifications and directions of Engineer in charge of work.**	**Each**	**36.00**	**1210.25**	**43569.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each	6.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each	6.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each	6.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each	6.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Each	6.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Each	6.00		
26	**Supplying and fixing MCB complete as per specifications and directions of Engineer in charge of work.**	**Each**	**36.00**	**1055.75**	**38007.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each	6.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each	6.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each	6.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each	6.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Each	6.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Each	6.00		
27	**Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in Ordinary soil not exceeding 1.5m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specifications and directions of Engineer in charge of work.**	**Cum**	**7835.40**	**316.94**	**2483352.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	1255.50		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	1255.50		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	1255.50		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	1255.50		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	1406.70		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	1406.70		
28	**Providing and installing at site of work 63mm (0.662) PVC Pipes of 6kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including joining of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete as per specifications and directions of Engineer in charge of work.**	**Mtr**	**17412.00**	**126.69**	**2205927.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Mtr	2790.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Mtr	2790.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Mtr	2790.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Mtr	2790.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Mtr	3126.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Mtr	3126.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
29	**Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications and directions of Engineer in charge of work.**	**Cum**	**7835.40**	**128.26**	**1004969.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	1255.50		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	1255.50		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	1255.50		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	1255.50		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	1406.70		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	1406.70		
30	**Cutting of road surface for pipeline trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc. in the following classification. complete as per specifications and directions of Engineer in charge of work. Cutting Asphalt Road Surface**	**Cum**	**324.00**	**574.52**	**186145.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	54.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	54.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	54.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	54.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	54.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	54.00		
31	**Earthwork excavation in soil, clay, sand, shedu soil, soft murrum, including shoring, strutting, barricading, danger lighting, bailing out water wherever necessary with stacking the materials as directed upto a lead of 50 Mtr and lift of 1.5 Mtr etc., complete as per specifications and directions of Engineer in charge of work.**	**Cum**	**274.69**	**356.38**	**97894.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	45.78		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	45.78		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	45.78		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	45.78		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	45.78		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	45.78		
32	**Add for additional lift charges for every lift of 1.50 M or part thereof beyond 1.50 Mtr to 10.50 Mtr complete as per specifications and directions of Engineer in charge of work.**	**Cum**	**137.34**	**58.71**	**8064.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	22.89		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	22.89		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	22.89		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	22.89		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	22.89		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	22.89		
33	**Providing and laying in position plain cement concrete of grade M 10 with cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregtes @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, including cost of all materials, labour, HOM of machinery, curing,lowering to any depth, dewatering etc., ccomplete as per specifications and directions of Engineer in charge of work.specifications with all lead and lifts for Foundation of steining.**	**Cum**	**3.05**	**6213.99**	**18966.00**

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	0.51		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	0.51		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	0.51		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	0.51		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	0.51		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	0.51		
34	**100 mm and down nominal size complete as per specifications and directions of Engineer in charge of work.**	**Cum**	**24.42**	**1017.25**	**24838.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	4.07		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	4.07		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	4.07		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	4.07		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	4.07		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	4.07		
35	**40 mm nominal size stone aggregatescomplete as per specifications and directions of Engineer in charge of work.**	**Cum**	**67.15**	**1124.17**	**75484.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	11.19		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	11.19		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	11.19		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	11.19		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	11.19		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	11.19		
36	**20 mm nominal size stone aggregates complete as per specifications and directions of Engineer in charge of work.**	**Cum**	**24.42**	**1124.17**	**27449.00**

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	4.07		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	4.07		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	4.07		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	4.07		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	4.07		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	4.07		
37	**6 mm nominal size stone aggregates complete as per specifications and directions of Engineer in charge of work.**	**Cum**	**24.42**	**1124.17**	**27449.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	4.07		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	4.07		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	4.07		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	4.07		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	4.07		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	4.07		
38	**Providing and filling sand complete as per specifications and directions of Engineer in charge of work.**	**Cum**	**20.35**	**1731.38**	**35229.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	3.39		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	3.39		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	3.39		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Cum	3.39		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	3.39		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Cum	3.39		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
39	**Supplying & errection of RCC rings for well steining of 0.3 Mtr Depth using M-20 grade concrete using clean graded granite or trap or jelly of approved quality 20mm and down size well compacted including centering, formwork and plastering for both faces with C.M 1:3 proportion as per design using 6.50mm M.S. coil at the rate of 10 Kgs/ring including cost of steel and fabrication, bailing out of water, errection etc., complete. For 1.20m dia (clear) rings of steining thickness 0.075mm upto 18 M depthcomplete as per specifications and directions of Engineer in charge of work.**	**Each**	**360.00**	**1142.27**	**411218.00**
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each	60.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each	60.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each	60.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Each	60.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Each	60.00		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Each	60.00		
40	**Providing and fixing M.S.grill work for windows and ventilators weighing 21kg/sqm using M.S. flats, or M.S. square rods, or combination of M.S. flats and square rods as per approved design, drawing including cutting steel sections and welding the same to required pattern with a coat of red lead primer, cost of materials, fixtures, labour and HOM complete as per specifications and directions of Engineer in charge of work.**	**Kgs**	**142.38**	**100.70**	**14338.00**

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Kgs	23.73		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Kgs	23.73		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Kgs	23.73		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Kgs	23.73		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Kgs	23.73		
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Kgs	23.73		
	Bescom charges	Nos	36.00	20000.00	720000.00
1	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
2	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
3	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
4	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division	Nos	6.00		
5	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Nos	6.00		

Sl.no	Description of Work	Unit	Total Quantity as per Estimation	Rate	Amount
6	Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division	Nos	6.00		
				Total of Other SR Items including GST Unit Rate	**720000.00**
				Total of PRED 19-20,Electrical SR 19-20,PWD SR 2018-19 Items	**36104243.00**
				Sub Total	**36824243.00**
				Add 12% GST for PRED 19-20,Electrical SR 19-20,PWD SR 2018-19 Items	**4332510.00**
				Total	**41156753.00**
				Add 1% DPR charges	**420000.00**
				Add 1% PMC charges	**420000.00**
				Miscellaneous and Unforeseen charges	**3247.00**
				Grand Total	**42000000.00**

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum.
4) The estimate is based on C.S.R of 2018-2019, PWD Electrical 2019-20,RDWS 2019-20, approved Rate and Issused Rates.

W-05

Assistant Engineer
BBMP

AE W-06

Assistant Executive Engineer
BBMP

Executive Engineer
BBMP

RUDRAPRASAD CONSULTANTS BANGALORE

Technical Sanction
Accorded For Rs 420 Lakhs only
Head of A/C.....
CER NO :...SD..... Dt:28.09.2021

ADMINISTRATIVE APPROVAL
Accorded For Rs. Rs. 420.00 Lakhs only
Head of A/c. P-3803, 15th Finance
Div. Ref No. 287/22-23 Date 16/09/2022
AE
EE(BTP)

DETAILED ESTIMATE

DETAILED ESTIMATE

For the Work of

"Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division"

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK : Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Palanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division

								Estimation Cost.Rs	**7000000.00**
Sl.no	**Description of Item**	**Unit**	**No**	**Length (m)**	**Breadth (m)**	**Depth (m)**	**Quantity**	**Rate**	**Amount**
1	Geophysical Investigation of site for sinking Borewell Geophysical Investigation of site for sinking Borewell for supplying drinking water to the habitation either through a hand pump, Mini Water Supply scheme, or Piped Water Supply Scheme by vertical electrical sounding by adopting venner or Schlumberger's method, including reconnaissance survey of geological formation, geophysical investigation of existing ground water in the vicinity, its quality, quantity & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation incluing an extra depth of 1.0 metre in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site, engaging technical personal and labour required etc., complete and as per the directions of the Engineer-in-charge of the work.(P.No - 148, I.No-13.04,RWS 19-20 SR)								
	Palanahalli Surrounding	Each BW	6				**6**	**3881.04**	**23287.00**
	Basic Rate	**3768**							
	3% Area Weightage	**113.04**							
	Total	**3881.04**							
2	Sinking of Borewell of 165mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burdern. Fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicle, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (Excluding cost of casing pipes, collars, cap etc., complete), complete and as per the directions of the Engineer-in-charge of the work .(P.No - 148, I.No-13.01,RWS 19-20 SR)								
	0-50mtrs	Rmtr	6	50.00			**300.00**	**357.41**	**107223.00**
	Basic Rate	**347**							
	3% Area Weightage	**10.41**							
	Total	**357.41**							
2a	50-100mtrs	Rmtr	6	50.00			**300.00**	**455.26**	**136578.00**
	Basic Rate	**442**							
	3% Area Weightage	**13.26**							
	Total	**455.26**							
2b	100-150mtrs	Rmtr	6	50.00			**300.00**	**469.68**	**140904.00**
	Basic Rate	**456**							
	3% Area Weightage	**13.68**							
	Total	**469.68**							
2c	150-200mtrs	Rmtr	6	50.00			**300.00**	**552.08**	**165624.00**
	Basic Rate	**536**							
	3% Area Weightage	**16.08**							
	Total	**552.08**							
2d	200-250mtrs	Rmtr	6	50.00			**300.00**	**653.02**	**195906.00**
	Basic Rate	**634**							
	3% Area Weightage	**19.02**							
	Total	**653.02**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
2e	250-300mtrs	Rmtr	6	50.00			**300.00**	**721.00**	**216300.00**
	Basic Rate	**700**							
	3% Area Weightage	**21**							
	Total	**721.00**							
2f	300-350mtrs	Rmtr	6	50.00			**300.00**	**849.75**	**254925.00**
	Basic Rate	**825**							
	3% Area Weightage	**24.75**							
	Total	**849.75**							
2g	350-400mtrs	Rmtr	6	50.00			**300.00**	**927.00**	**278100.00**
	Basic Rate	**900**							
	3% Area Weightage	**27**							
	Total	**927.00**							
3	Supply of ISI Mark nominal bore, plain end steel casing pipe-grade of steel Fe 410 of wall thickness conforming to IS 4270-2001 and latest amendments, electrical resistance welded steel tube material and conforming to IS 1387-1993 and manufactured by basic open hearth electric or basic oxygen process in random length of 5 to 7m. Both ends threaded conforming to IS 554-1985, one end fixed with socket conforming to IS 4270-2001 and the other end with screwed pipes. All pipes shall be resonably free from defects. The tubes shall be resonably straight and should be with ISI marking weighing 25.10kg/m. (exclusive of all taxes and duties). Prices include Collar-Medium duty 175mm dia x 5.4mm thick - Rs.950.00 complete and as per the directions of the Engineer-in-charge of the work.(P.No-338, Sl.No-15.85,RWS 19-20 SR)								
		Rmtr	6	60.00			**360.00**	**1364.75**	**491310.00**
	Basic Rate	**1325**							
	3% Area Weightage	**39.75**							
	Total	**1364.75**							
4	PVC Pipes 10kg/sqm 250mm outerdia(PWD SR 2018-19 XXXV/892 Code 3008)								
		m	6	10.00			**60.00**	**2203.39**	**132204.00**
5	Providing and laying at site of work MS casing caps as per IS 1239 (part-II) 1982 with all latest amendments if any for any dia. The thickness of plate used for covering one end shall be 3mm (minimum). The dimensions of caps and colars shall be strictly as per IS 1239 (Part-II) 1982 with all amendments including cost of material and labour charges for fixing, if any etc. complete with all lead and lifts and as directed by the Engineer in charge(P.No-338,Sl.No-15.87,RWS 19-20 SR)								
		Each	6				**6**	**103.00**	**618.00**
	Basic Rate	**100.00**							
	3% Area Weightage	**3.00**							
	Total	**103.00**							
6	Fabrication supplying and mounting MS box of 16 SWG suitable for floor /wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primer paint and finally finished with approved colour enamelled metal paint etc., complete box of 21600 sqcm with all lead and lift, loading, unloading and labour charges etc., complete and as per the directions of the Engineer-in-charge of the work.(P.No-30,I.No-5.42,KPWD Electrical SR 19-20)								
		Sq.cm	6	1100	20		132000	0.35	**46200.00**
7	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI union confirming to IS 1239-II, 1991 with latest amendments if any. (RDWS SR 2019-20 C-15/P-258 I. No. 15.78.5)								
		No	6	1			6	**180.25**	**1082.00**
	Basic Rate	**175.00**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	3% Area Weightage	**5.25**							
	Total	**180.25**							
8	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI hexagonal nipple confirming to IS 1239-II, 1991 with latest amendments if any. (RDWS SR 2019-20 C-15/P-258 I. No. 15.80.5)								
		No	6	3			18	**144.20**	**2596.00**
	Basic Rate	**140.00**							
	3% Area Weightage	**4.20**							
	Total	**144.20**							
9	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI elbow confirming to IS 1239-II, 1991 with latest amendments if any.(RDWS SR 2019-20 C-15/P-257 I. No. 15.73.5)								
		No	6	3			18	180.25	**3245.00**
	Basic Rate	**175.00**							
	3% Area Weightage	**5.25**							
	Total	**180.25**							
10	Labour charges for Erection, Electrification and commissioning works of Pump sets including aligning and balancing with all necessary erection of materials and labour including supply and erection of two pair of supporting clamps, bore well caps, cable clips and water tight gland cable protectors, bolts, nuts, valve and gauges, tools and equipments etc., involved in the job. as per specifications, with testing of as per instructions of engineer incharge of work(P.No - 130, I.No-12.16,RWS 19-20 SR)								
		Job	6				**6**	**5819.50**	**34917.00**
	Basic Rate	**5650**							
	3% Area Weightage	**169.5**							
	Total	**5819.5**							
11	Labour charges for Erection of outdoor type panel board and meter board units with all necessary materials and labour tools and equipments including providing cement concrete foundation bed etc., complete. as per specifications, with testing of as per instructions of engineer incharge of work(P.No - 131, I.No-12.18,RWS 19-20 SR)								
		Job	6				**6**	**1233.94**	**7404.00**
	Basic Rate	**1198**							
	3% Area Weightage	**35.94**							
	Total	**1233.94**							
12	Supplying of 1.1KV LT UG cable XPLE or heat resistant PVC Insulated PVC eatruded inner sheath armoured UG LT cable as per IS -1554(Part-1) or IS-7098 Part-1,Armouring strip thickness in average +5% and resistivity 14ohms/kms(max) as per IS -3975 4 core 16sqmm (Ele SR 2019-20 P-No 40 I/No-6.4.4)								
		Rmtr	6	45.00			**270.00**	**150.00**	**40500.00**
13	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe/ stone pipe / on wall/ on pole as required 6 sqmm to 16 sqmm. (Ele SR OF 2019-20 P-No 41 I/No-6.5.1)								
		Rmtr	6	45.00			**270.00**	**11.88**	**3208.00**
14	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete cutting road surfaces(P.No - 41, I.No -6.6.3, KPWD Electrical SR 19-20)								
		Mtr	6	45.00			**270.00**	**82.00**	**22140.00**
15	Supplying and fixing of class A GI pipe on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV class 40mm (P.No - 41, I.No -6.9.1, KPWD Electrical SR 19-20)								
		Mtr	6	4.00			**24.00**	**335.00**	**8040.00**

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
16	Earthing: Supplying and fixing and wiring earth electrode for grounding circuits IC cutouts and other equipments on the meter board in the pit. The pits should be filled up with equal proportion of salt and charcoal 150mm around the pipe to complete depth. The connection from the pipe to the conduits etc. is to established through GI wire of sizes as per clause 7.3.3 of IS 732 using 12mm bolts, nuts, washers and check nuts, the pipe shall have 16 through holes of 12mm dia.(P.No - 131, I.No-12.23,RWS 19-20 SR)								
		Nos	6				**6**	**3741.99**	**22452.00**
	Basic Rate	**3633**							
	3% Area Weightage	**108.99**							
	Total	**3741.99**							
17	Providing, Supplying and fixing LT cast iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc.with all necessary materials and labour tools and equipments . as per specifications, with testing of as per instructions of engineer incharge of work a) 3½x6 Sqmm (P.No - 131, I.No-12.22(a),RWS 19-20 SR)								
		Nos	6				**6**	**511.91**	**3072.00**
	Basic Rate	**497**							
	3% Area Weightage	**14.91**							
	Total	**511.91**							
18	Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc.,Size 20 x 20 x 2.5 inches with all lead and lift, loading, unloading and labour charges etc., complete and as per the directions of the Engineer-in-charge of the work(P.No - 24, I.No -5.6.6, KPWD Electrical SR 19-20)								
		Nos	6				**6**	**292.00**	**1752.00**
19	Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 20 HP 40 Stage(PWD SR 18-19, P.No.XLII Sl.no,60)								
		Nos	6				**6**	**90595**	**543570.00**
20	Supply and delivery of galvanized mild steel tubes of 6 mtr standard length heavy class (C Class) as per IS 1239 (Part-I) 1990 with latest amendments with ISI Mark (one end fitted with heavy duty collar and other end fitted with protective cover) (50mm) (P.No - 130, I.No-12.11(a),RWS 19-20 SR)								
		Rmtr	6	59.00			**354.00**	**2861.34**	**1012915.00**
	Basic Rate	**2778**							
	3% Area Weightage	**83.34**							
	Total	**2861.34**							
21	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to IS:8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100Volts as per IS-694:1990.complete and as per the directions of the Engineer-in-charge of the work(P.No - 7, I.No -2.6.4, KPWD Electrical SR 19-20)								
		Mtr	6	738.00			**4428.00**	**205.00**	**907740.00**

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
22	Supplying & delivery at site brand new / Essen / lotus sunsines/Adarsh/Gk controls best indigenous make combine energy meter-cum-control panel board unit of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph,50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key ribs should be provided inside the door canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz,380/440 AC supply shall be consisted etc., completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above Up to 20HP with star delta starter (MR) Page No.XLVII, Sl No.13, PWD SR 2018-19								
		Nos	6				**6.00**	**21000.00**	**126000.00**
23	Supply and delivery at site of brand new best make gate valve as per IS 778/1984 with ISI Mark and as per its latest amendments a)size 50mm (P.No - 128, I.No-12.05(a),RWS 19-20 SR)								
		Each	6				**6**	**1225.70**	**7355.00**
	Basic Rate	**1190**							
	3% Area Weightage	**35.7**							
	Total	**1225.7**							
24	Supply and delivery at site of brand new best make non-return valve as per IS 778/1984 with ISI Mark and as per its latest amendments a)size 50mm (P.No - 129, I.No-12.06(a),RWS 19-20 SR)								
		Each	6				**6.00**	**1210.25**	**7262.00**
	Basic Rate	**1175**							
	3% Area Weightage	**35.25**							
	Total	**1210.25**							
25	Supply and delivery at site delivery of best indigenous brand new MCB (Miniature Circuit Breakers) of required capacity as per IS 88228/1978 and its latest amendments and with ISI Mark of 6/10/16/20/25/40 Amps with scalable box. (P.No - 130, I.No-12.10,RWS 19-20 SR)								
		Each	6				**6.00**	**1055.75**	**6335.00**
	Basic Rate	**1025**							
	3% Area Weightage	**30.75**							
	Total	**1055.75**							
26	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in Ordinary soil not exceeding 1.5m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specifications(P.No - 6, I.No - 2.3, PWD SR 18-19)								
	For Replacing/extension of pipeline	Cum	6	265.00	0.60	0.75	715.50		
	For Connecting borewell	Cum	6	200.00	0.60	0.75	540.00		
	Sub total						**1255.50**	**316.94**	**397919.00**
	Basic Rate	**299**							
	6% Area Weightage	**17.94**							
	Total	**316.94**							
27	Providing and installing at site of work 63mm (0.662) PVC Pipes of 6kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including joining of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete (P.No - 89, Sl.No - 10.01.2,RWS 19-20)								

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	For Replacing/extension of pipeline	Mtr	6	265.00			1590.00		
	For Connecting borewell	Mtr	6	200.00			1200.00		
	Sub total						**2790.00**	**126.69**	**353466.00**
	Basic Rate	**123**							
	3% Area Weightage	**3.69**							
	Total	**126.69**							
28	Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications (P.No - 7, I.No - 2.11, PWD SR 18-19)								
	For Replacing/extension of pipeline	Cum	6	265.00	0.60	0.75	715.50		
	For Connecting borewell	Cum	6	200.00	0.60	0.75	540.00		
	Sub total						**1255.50**	**128.26**	**161031.00**
	Basic Rate	**121**							
	6% Area Weightage	**7.26**							
	Total	**128.26**							
29	Cutting of road surface for pipeline trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc. in the following classification. (RDWS SR 2019-20 Pg No.08 I No.2.26) Cutting Asphalt Road Surface(RDWS SR 2019-20Pg No.08 I No.2.26.2)								
		Cum	6	100	0.6	0.15	**54.00**	**574.52**	**31025.00**
	Basic Rate	**542.00**							
	6% Area Weightage	**32.52**							
	Total	**574.52**							
30	Earthwork excavation in soil, clay, sand, shedu soil, soft murrum, including shoring, strutting, barricading, danger lighting, bailing out water wherever necessary with stacking the materials as directed upto a lead of 50 Mtr and lift of 1.5 Mtr etc., complete.(RDWS SR 2019-20Pg No.08 I No.11.13)								
	For Water Recharge	Cum	6	3.14x1.80x1.80/4		3.00	45.78	356.38	**16316.00**
	Basic Rate	**346**							
	3% Area Weightage	**10.38**							
	Total	**356.38**							
31	Add for additional lift charges for every lift of 1.50 M or part thereof beyond 1.50 Mtr to 10.50 Mtr (RDWS SR 2019-20Pg No.08 I No.11.13.1)								
	For Water Recharge Pits,	Cum	6	3.14x1.80x1.80/4		1.50	22.89	58.71	**1344.00**
	Basic Rate	**57.00**							
	3% Area Weightage	**1.71**							
	Total	**58.71**							
32	Providing and laying in position plain cement concrete of grade M 10 with cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregtes @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, including cost of all materials, labour, HOM of machinery, curing,lowering to any depth, dewatering etc., complete as per specifications with all lead and lifts for Foundation of steining. (RDWS SR 2019-20Pg No.08 I No.11.17)								
	For Water Recharge Pits,	Cum	6	3.14x1.2	0.15	0.15	0.51	6213.99	**3161.00**

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	Basic Rate	**6033.00**							
	3% Area Weightage	**180.99**							
	Total	**6213.99**							
33	100 mm and down nominal size (RDWS SR 2019-20,P No.I item No 23)								
	For Water Recharge Pits.	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
						Total	**4.07**	**1017.25**	**4140.00**
	Basic Rate	**987.62**							
	3% Area Weightage	**29.63**							
	Total	**1017.25**							
34	40 mm nominal size stone aggregates ((RDWS SR 2019-20 P No I item No 25)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
	Filter media around rings		6	3.14x1.4	0.40	2.70	7.12		
						Total	**11.19**	**1124.17**	**12581.00**
	Basic Rate	**1091.43**							
	3% Area Weightage	**32.74**							
	Total	**1124.17**							
35	20 mm nominal size stone aggregates ((RDWS SR 2019-20,P No I item No 28)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
						Total	**4.07**	**1124.17**	**4575.00**
	Basic Rate	**1091.43**							
	3% Area Weightage	**32.74**							
	Total	**1124.17**							
36	6 mm nominal size stone aggregates ((RDWS SR 2019-20,P No I item No 31)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
						Total	**4.07**	**1124.17**	**4575.00**
	Basic Rate	**1091.43**							
	3% Area Weightage	**32.74**							
	Total	**1124.17**							
37	KSRB 2.6: Providing and filling sand (RDWS SR 2019-20,P No II.item No 2d 51)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.50	3.39		
						Total	**3.39**	**1731.38**	**5872.00**
	Basic Rate	**1680.95**							
	3% Area Weightage	**50.43**							
	Total	**1731.38**							
38	Supplying & errection of RCC rings for well steining of 0.3 Mtr Depth using M-20 grade concrete using clean graded granite or trap or jelly of approved quality 20mm and down size well compacted including centering, formwork and plastering for both faces with C.M 1:3 proportion as per design using 6.50mm M.S. coil at the rate of 10 Kgs/ring including cost of steel and fabrication, bailing out of water, errection etc., complete. For 1.20m dia (clear) rings of steining thickness 0.075mm upto 18 M depth(RDWS SR 2019-20Pg No.08 I No.11.20.3)								
	RCC Pits,	Each	60				60.00		
						Total	**60.00**	**1142.27**	**68537.00**
	Basic Rate	**1109.00**							
	3% Area Weightage	**33.27**							
	Total	**1142.27**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
39	KSRB 7.9 : Providing and fixing M.S.grill work for windows and ventilators weighing 21kg/sqm using M.S. flats, or M.S. square rods, or combination of M.S. flats and square rods as per approved design, drawing including cutting steel sections and welding the same to required pattern with a coat of red lead primer, cost of materials, fixtures, labour and HOM complete as per specifications. Specification No.KBS 7.12 (p.g No 34.item No 7.9)								
	RCC Pits,	Kgs	6	3.14x1.20x1.20/4			6.78		
							6.78		
						Total=1.13 x21kg/sqm	**23.73**	100.70	**2390.00**
	Basic Rate	**95.00**							
	6% Area Weightage	**5.70**							
	Total	**100.70**							
	BESCOM Charges	Nos	6				**6**	**20000**	**120000.00**
							Total of Other SR Items including GST Unit Rate		**120000.00**
							Total of PRED 19-20,Electrical SR 19-20,PWD SR 2018-19 Items		**6017696.00**
							Sub Total		**6137696.00**
							Add 12% GST for PRED 19-20,Electrical SR 19-20,PWD SR 2018-19 Items		**722124.00**
							Total		**6859820.00**
							Add 1% DPR charges		**70000.00**
							Add 1% PMC charges		**70000.00**
							Miscellaneous and Unforeseen charges		**180.00**
							Grand Total		**7000000.00**

CERTIFICATE:

1) The work spot has been inspected and found to be necessary

2) The work spot comes under B.B.M.P

3) The provisions made in the estimate are necessary and minimum.

4) The estimate is based on C.S.R of 2018-2019, PWD Electrical 2019-20,RDWS 2019-20, approved Rate and Issused Rates.

Assistant Engineer
BBMP

Assistant Executive Engineer
BBMP

Executive Engineer
BBMP

RUDRAPRASAD CONSULTANTS BANGALORE

DETAILED ESTIMATE

For the Work of

"Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division"

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK : Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thirumenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division

								Estimation Cost.Rs	7000000.00
Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
1	Geophysical Investigation of site for sinking Borewell Geophysical Investigation of site for sinking Borewell for supplying drinking water to the habitation either through a hand pump, Mini Water Supply scheme, or Piped Water Supply Scheme by vertical electrical sounding by adopting venner or Schlumberger's method, including reconnaissance survey of geological formation, geophysical investigation of existing ground water in the vicinity, its quality, quantity & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation incluing an extra depth of 1.0 metre in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site, engaging technical personal and labour required etc., complete and as per the directions of the Engineer-in-charge of the work.(P.No - 148, I.No-13.04,RWS 19-20 SR)								
	Thirumenahalli Surrounding	Each BW	6				**6**	**3881.04**	**23287.00**
	Basic Rate	**3768**							
	3% Area Weightage	**113.04**							
	Total	**3881.04**							
2	Sinking of Borewell of 165mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burdern. Fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicle, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (Excluding cost of casing pipes, collars, cap etc., complete), complete and as per the directions of the Engineer-in-charge of the work .(P.No - 148, I.No-13.01,RWS 19-20 SR)								
	0-50mtrs	Rmtr	6	50.00			**300.00**	**357.41**	**107223.00**
	Basic Rate	**347**							
	3% Area Weightage	**10.41**							
	Total	**357.41**							
2a	50-100mtrs	Rmtr	6	50.00			**300.00**	**455.26**	**136578.00**
	Basic Rate	**442**							
	3% Area Weightage	**13.26**							
	Total	**455.26**							
2b	100-150mtrs	Rmtr	6	50.00			**300.00**	**469.68**	**140904.00**
	Basic Rate	**456**							
	3% Area Weightage	**13.68**							
	Total	**469.68**							
2c	150-200mtrs	Rmtr	6	50.00			**300.00**	**552.08**	**165624.00**
	Basic Rate	**536**							
	3% Area Weightage	**16.08**							
	Total	**552.08**							
2d	200-250mtrs	Rmtr	6	50.00			**300.00**	**653.02**	**195906.00**
	Basic Rate	**634**							
	3% Area Weightage	**19.02**							
	Total	**653.02**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
2e	250-300mtrs	Rmtr	6	50.00			**300.00**	**721.00**	**216300.00**
	Basic Rate	**700**							
	3% Area Weightage	**21**							
	Total	**721.00**							
2f	300-350mtrs	Rmtr	6	50.00			**300.00**	**849.75**	**254925.00**
	Basic Rate	**825**							
	3% Area Weightage	**24.75**							
	Total	**849.75**							
2g	350-400mtrs	Rmtr	6	50.00			**300.00**	**927.00**	**278100.00**
	Basic Rate	**900**							
	3% Area Weightage	**27**							
	Total	**927.00**							
3	Supply of ISI Mark nominal bore, plain end steel casing pipe-grade of steel Fe 410 of wall thickness conforming to IS 4270-2001 and latest amendments, electrical resistance welded steel tube material and conforming to IS 1387-1993 and manufactured by basic open hearth electric or basic oxygen process in random length of 5 to 7m. Both ends threaded conforming to IS 554-1985, one end fixed with socket conforming to IS 4270-2001 and the other end with screwed pipes. All pipes shall be resonably free from defects. The tubes shall be resonably straight and should be with ISI marking weighing 25.10kg/m. (exclusive of all taxes and duties). Prices include Collar-Medium duty 175mm dia x 5.4mm thick - Rs.950.00 complete and as per the directions of the Engineer-in-charge of the work.(P.No-338, Sl.No-15.85,RWS 19-20 SR)								
		Rmtr	6	60.00			**360.00**	**1364.75**	**491310.00**
	Basic Rate	**1325**							
	3% Area Weightage	**39.75**							
	Total	**1364.75**							
4	PVC Pipes 10kg/sqm 250mm outerdia(PWD SR 2018-19 XXXV/892 Code 3008)								
		m	6	10.00			**60.00**	**2203.39**	**132204.00**
5	Providing and laying at site of work MS casing caps as per IS 1239 (part-II) 1982 with all latest amendments if any for any dia. The thickness of plate used for covering one end shall be 3mm (minimum). The dimensions of caps and colars shall be strictly as per IS 1239 (Part-II) 1982 with all amendments including cost of material and labour charges for fixing, if any etc. complete with all lead and lifts and as directed by the Engineer in charge(P.No-338,Sl.No-15.87,RWS 19-20 SR)								
		Each	6				**6**	**103.00**	**618.00**
	Basic Rate	**100.00**							
	3% Area Weightage	**3.00**							
	Total	**103.00**							
6	Fabrication supplying and mounting MS box of 16 SWG suitable for floor /wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primer paint and finally finished with approved colour enamelled metal paint etc., complete box of 21600 sqcm with all lead and lift, loading, unloading and labour charges etc., complete and as per the directions of the Engineer-in-charge of the work.(P.No-30,I.No-5.42,KPWD Electrical SR 19-20)								
		Sq.cm	6	1100	20		132000	0.35	**46200.00**
7	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI union confirming to IS 1239-II, 1991 with latest amendments if any. (RDWS SR 2019-20 C-15/P-258 I. No. 15.78.5)								
		No	6	1			6	**180.25**	**1082.00**
	Basic Rate	**175.00**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	3% Area Weightage	**5.25**							
	Total	**180.25**							
8	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI hexagonal nipple confirming to IS 1239-II, 1991 with latest amendments if any. (RDWS SR 2019-20 C-15/P-258 I. No. 15.80.5)								
		No	6	3			18	**144.20**	**2596.00**
	Basic Rate	**140.00**							
	3% Area Weightage	**4.20**							
	Total	**144.20**							
9	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI elbow confirming to IS 1239-II, 1991 with latest amendments if any.(RDWS SR 2019-20 C-15/P-257 I. No. 15.73.5)								
		No	6	3			18	180.25	**3245.00**
	Basic Rate	**175.00**							
	3% Area Weightage	**5.25**							
	Total	**180.25**							
10	Labour charges for Erection, Electrification and commissioning works of Pump sets including aligning and balancing with all necessary erection of materials and labour including supply and erection of two pair of supporting clamps, bore well caps, cable clips and water tight gland cable protectors, bolts, nuts, valve and gauges, tools and equipments etc., involved in the job. as per specifications, with testing of as per instructions of engineer incharge of work(P.No - 130, I.No-12.16,RWS 19-20 SR)								
		Job	6				**6**	**5819.50**	**34917.00**
	Basic Rate	**5650**							
	3% Area Weightage	**169.5**							
	Total	**5819.5**							
11	Labour charges for Erection of outdoor type panel board and meter board units with all necessary materials and labour tools and equipments including providing cement concrete foundation bed etc., complete. as per specifications, with testing of as per instructions of engineer incharge of work(P.No - 131, I.No-12.18,RWS 19-20 SR)								
		Job	6				**6**	**1233.94**	**7404.00**
	Basic Rate	**1198**							
	3% Area Weightage	**35.94**							
	Total	**1233.94**							
12	Supplying of 1.1KV LT UG cable XPLE or heat resistant PVC Insulated PVC eatruded inner sheath armoured UG LT cable as per IS -1554(Part-1) or IS-7098 Part-1,Armouring strip thickness in average +5% and resistivity 14ohms/kms(max) as per IS -3975 4 core 16sqmm (Ele SR 2019-20 P-No 40 I/No-6.4.4)								
		Rmtr	6	45.00			**270.00**	**150.00**	**40500.00**
13	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe/ stone pipe / on wall/ on pole as required 6 sqmm to 16 sqmm. (Ele SR OF 2019-20 P-No 41 I/No-6.5.1)								
		Rmtr	6	45.00			**270.00**	**11.88**	**3208.00**
14	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete cutting road surfaces(P.No - 41, I.No -6.6.3, KPWD Electrical SR 19-20)								
		Mtr	6	45.00			**270.00**	**82.00**	**22140.00**
15	Supplying and fixing of class A GI pipe on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV class 40mm (P.No - 41, I.No -6.9.1, KPWD Electrical SR 19-20)								
		Mtr	6	4.00			**24.00**	**335.00**	**8040.00**

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
16	Earthing: Supplying and fixing and wiring earth electrode for grounding circuits IC cutouts and other equipments on the meter board in the pit. The pits should be filled up with equal proportion of salt and charcoal 150mm around the pipe to complete depth. The connection from the pipe to the conduits etc. is to established through GI wire of sizes as per clause 7.3.3 of IS 732 using 12mm bolts, nuts, washers and check nuts, the pipe shall have 16 through holes of 12mm dia.(P.No - 131, I.No-12.23,RWS 19-20 SR)								
		Nos	6				6	3741.99	22452.00
	Basic Rate	**3633**							
	3% Area Weightage	**108.99**							
	Total	**3741.99**							
17	Providing, Supplying and fixing LT cast iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc.with all necessary materials and labour tools and equipments . as per specifications, with testing of as per instructions of engineer incharge of work a) 3½x6 Sqmm (P.No - 131, I.No-12.22(a),RWS 19-20 SR)								
		Nos	6				6	511.91	3072.00
	Basic Rate	**497**							
	3% Area Weightage	**14.91**							
	Total	**511.91**							
18	Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc.,Size 20 x 20 x 2.5 inches with all lead and lift, loading, unloading and labour charges etc., complete and as per the directions of the Engineer-in-charge of the work(P.No - 24, I.No -5.6.6, KPWD Electrical SR 19-20)								
		Nos	6				6	292.00	1752.00
19	Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 20 HP 40 Stage(PWD SR 18-19, P.No.XLII Sl.no,60)								
		Nos	6				6	90595	543570.00
20	Supply and delivery of galvanized mild steel tubes of 6 mtr standard length heavy class (C Class) as per IS 1239 (Part-I) 1990 with latest amendments with ISI Mark (one end fitted with heavy duty collar and other end fitted with protective cover) (50mm) (P.No - 130, I.No-12.11(a),RWS 19-20 SR)								
		Rmtr	6	59.00			354.00	2861.34	1012915.00
	Basic Rate	**2778**							
	3% Area Weightage	**83.34**							
	Total	**2861.34**							
21	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to IS:8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100Volts as per IS-694:1990.complete and as per the directions of the Engineer-in-charge of the work(P.No - 7, I.No -2.6.4, KPWD Electrical SR 19-20)								
		Mtr	6	738.00			4428.00	205.00	907740.00

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
22	Supplying & delivery at site brand new / Essen / lotus sunsines/Adarsh/Gk controls best indigenous make combine energy meter-cum-control panel board unit of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph,50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key ribs should be provided inside the door canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz,380/440 AC supply shall be consisted etc., completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above Up to 20HP with star delta starter (MR) Page No.XLVII, Sl No.13, PWD SR 2018-19								
		Nos	6				**6.00**	**21000.00**	**126000.00**
23	Supply and delivery at site of brand new best make gate valve as per IS 778/1984 with ISI Mark and as per its latest amendments a)size 50mm (P.No - 128, I.No-12.05(a),RWS 19-20 SR)								
		Each	6				**6**	**1225.70**	**7355.00**
	Basic Rate	**1190**							
	3% Area Weightage	**35.7**							
	Total	**1225.7**							
24	Supply and delivery at site of brand new best make non-return valve as per IS 778/1984 with ISI Mark and as per its latest amendments a)size 50mm (P.No - 129, I.No-12.06(a),RWS 19-20 SR)								
		Each	6				**6.00**	**1210.25**	**7262.00**
	Basic Rate	**1175**							
	3% Area Weightage	**35.25**							
	Total	**1210.25**							
25	Supply and delivery at site delivery of best indigenous brand new MCB (Miniature Circuit Breakers) of required capacity as per IS 88228/1978 and its latest amendments and with ISI Mark of 6/10/16/20/25/40 Amps with scalable box. (P.No - 130, I.No-12.10,RWS 19-20 SR)								
		Each	6				**6.00**	**1055.75**	**6335.00**
	Basic Rate	**1025**							
	3% Area Weightage	**30.75**							
	Total	**1055.75**							
26	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in Ordinary soil not exceeding 1.5m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specifications(P.No - 6, I.No - 2.3, PWD SR 18-19)								
	For Replacing/extension of pipeline	Cum	6	265.00	0.60	0.75	715.50		
	For Connecting borewell	Cum	6	200.00	0.60	0.75	540.00		
	Sub total						**1255.50**	**316.94**	**397919.00**
	Basic Rate	**299**							
	6% Area Weightage	**17.94**							
	Total	**316.94**							
27	Providing and installing at site of work 63mm (0.662) PVC Pipes of 6kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including joining of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete (P.No - 89, Sl.No - 10.01.2,RWS 19-20)								

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	For Replacing/extension of pipeline	Mtr	6	265.00			1590.00		
	For Connecting borewell	Mtr	6	200.00			1200.00		
	Sub total						**2790.00**	**126.69**	**353466.00**
	Basic Rate	**123**							
	3% Area Weightage	**3.69**							
	Total	**126.69**							
28	Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications (P.No - 7, I.No - 2.11, PWD SR 18-19)								
	For Replacing/extension of pipeline	Cum	6	265.00	0.60	0.75	715.50		
	For Connecting borewell	Cum	6	200.00	0.60	0.75	540.00		
	Sub total						**1255.50**	**128.26**	**161031.00**
	Basic Rate	**121**							
	6% Area Weightage	**7.26**							
	Total	**128.26**							
29	Cutting of road surface for pipeline trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc. in the following classification. (RDWS SR 2019-20 Pg No.08 I No.2.26) Cutting Asphalt Road Surface(RDWS SR 2019-20Pg No.08 I No.2.26.2)								
		Cum	6	100	0.6	0.15	**54.00**	**574.52**	**31025.00**
	Basic Rate	**542.00**							
	6% Area Weightage	**32.52**							
	Total	**574.52**							
30	Earthwork excavation in soil, clay, sand, shedu soil, soft murrum, including shoring, strutting, barricading, danger lighting, bailing out water wherever necessary with stacking the materials as directed upto a lead of 50 Mtr and lift of 1.5 Mtr etc., complete.(RDWS SR 2019-20Pg No.08 I No.11.13)								
	For Water Recharge	Cum	6	3.14x1.80x1.80/4		3.00	45.78	356.38	**16316.00**
	Basic Rate	**346**							
	3% Area Weightage	**10.38**							
	Total	**356.38**							
31	Add for additional lift charges for every lift of 1.50 M or part thereof beyond 1.50 Mtr to 10.50 Mtr (RDWS SR 2019-20Pg No.08 I No.11.13.1)								
	For Water Recharge Pits,	Cum	6	3.14x1.80x1.80/4		1.50	22.89	58.71	**1344.00**
	Basic Rate	**57.00**							
	3% Area Weightage	**1.71**							
	Total	**58.71**							
32	Providing and laying in position plain cement concrete of grade M 10 with cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregtes @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, including cost of all materials, labour, HOM of machinery, curing,lowering to any depth, dewatering etc., complete as per specifications with all lead and lifts for Foundation of steining. (RDWS SR 2019-20Pg No.08 I No.11.17)								
	For Water Recharge Pits,	Cum	6	3.14x1.2	0.15	0.15	0.51	6213.99	**3161.00**

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	Basic Rate	**6033.00**							
	3% Area Weightage	**180.99**							
	Total	**6213.99**							
33	100 mm and down nominal size (RDWS SR 2019-20,P No.I item No 23)								
	For Water Recharge Pits.	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
						Total	**4.07**	**1017.25**	**4140.00**
	Basic Rate	**987.62**							
	3% Area Weightage	**29.63**							
	Total	**1017.25**							
34	40 mm nominal size stone aggregates ((RDWS SR 2019-20 P No I item No 25)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
	Filter media around rings		6	3.14x1.4	0.40	2.70	7.12		
						Total	**11.19**	**1124.17**	**12581.00**
	Basic Rate	**1091.43**							
	3% Area Weightage	**32.74**							
	Total	**1124.17**							
35	20 mm nominal size stone aggregates ((RDWS SR 2019-20,P No I item No 28)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
						Total	**4.07**	**1124.17**	**4575.00**
	Basic Rate	**1091.43**							
	3% Area Weightage	**32.74**							
	Total	**1124.17**							
36	6 mm nominal size stone aggregates ((RDWS SR 2019-20,P No I item No 31)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
						Total	**4.07**	**1124.17**	**4575.00**
	Basic Rate	**1091.43**							
	3% Area Weightage	**32.74**							
	Total	**1124.17**							
37	KSRB 2.6: Providing and filling sand (RDWS SR 2019-20,P No II.item No 2d 51)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.50	3.39		
						Total	**3.39**	**1731.38**	**5872.00**
	Basic Rate	**1680.95**							
	3% Area Weightage	**50.43**							
	Total	**1731.38**							
38	Supplying & errection of RCC rings for well steining of 0.3 Mtr Depth using M-20 grade concrete using clean graded granite or trap or jelly of approved quality 20mm and down size well compacted including centering, formwork and plastering for both faces with C.M 1:3 proportion as per design using 6.50mm M.S. coil at the rate of 10 Kgs/ring including cost of steel and fabrication, bailing out of water, errection etc., complete. For 1.20m dia (clear) rings of steining thickness 0.075mm upto 18 M depth(RDWS SR 2019-20Pg No.08 I No.11.20.3)								
	RCC Pits,	Each	60				60.00		
						Total	**60.00**	**1142.27**	**68537.00**
	Basic Rate	**1109.00**							
	3% Area Weightage	**33.27**							
	Total	**1142.27**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
39	KSRB 7.9 : Providing and fixing M.S.grill work for windows and ventilators weighing 21kg/sqm using M.S. flats, or M.S. square rods, or combination of M.S. flats and square rods as per approved design, drawing including cutting steel sections and welding the same to required pattern with a coat of red lead primer, cost of materials, fixtures, labour and HOM complete as per specifications. Specification No.KBS 7.12 (p.g No 34.item No 7.9)								
	RCC Pits,	Kgs	6	3.14x1.20x1.20/4			6.78		
							6.78		
						Total=1.13 x21kg/sqm	**23.73**	100.70	**2390.00**
	Basic Rate	**95.00**							
	6% Area Weightage	**5.70**							
	Total	**100.70**							
	BESCOM Charges	Nos	6				**6**	**20000**	**120000.00**
							Total of Other SR Items including GST Unit Rate		**120000.00**
							Total of PRED 19-20,Electrical SR 19-20,PWD SR 2018-19 Items		**6017696.00**
							Sub Total		**6137696.00**
							Add 12% GST for PRED 19-20,Electrical SR 19-20,PWD SR 2018-19 Items		**722124.00**
							Total		**6859820.00**
							Add 1% DPR charges		**70000.00**
							Add 1% PMC charges		**70000.00**
							Miscellaneous and Unforeseen charges		**180.00**
							Grand Total		**7000000.00**

CERTIFICATE:

1) The work spot has been inspected and found to be necessary

2) The work spot comes under B.B.M.P

3) The provisions made in the estimate are necessary and minimum.

4) The estimate is based on C.S.R of 2018-2019, PWD Electrical 2019-20,RDWS 2019-20, approved Rate and Issused Rates.

Assistant Engineer
BBMP

Assistant Executive Engineer
BBMP

Executive Engineer
BBMP

RUDRAPRASAD CONSULTANTS
BANGALORE

DETAILED ESTIMATE

For the Work of

"Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division"

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK : Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Chokkanahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division

								Estimation Cost.Rs	**7000000.00**
Sl.no	**Description of Item**	**Unit**	**No**	**Length (m)**	**Breadth (m)**	**Depth (m)**	**Quantity**	**Rate**	**Amount**
1	Geophysical Investigation of site for sinking Borewell Geophysical Investigation of site for sinking Borewell for supplying drinking water to the habitation either through a hand pump, Mini Water Supply scheme, or Piped Water Supply Scheme by vertical electrical sounding by adopting venner or Schlumberger's method, including reconnaissance survey of geological formation, geophysical investigation of existing ground water in the vicinity, its quality, quantity & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation incluing an extra depth of 1.0 metre in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site, engaging technical personal and labour required etc., complete and as per the directions of the Engineer-in-charge of the work.(P.No - 148, I.No-13.04,RWS 19-20 SR)								
	Chokkanahalli Surrounding	Each BW	6				**6**	**3881.04**	**23287.00**
	Basic Rate	**3768**							
	3% Area Weightage	**113.04**							
	Total	**3881.04**							
2	Sinking of Borewell of 165mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burdern. Fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicle, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (Excluding cost of casing pipes, collars, cap etc., complete), complete and as per the directions of the Engineer-in-charge of the work .(P.No - 148, I.No-13.01,RWS 19-20 SR)								
	0-50mtrs	Rmtr	6	50.00			**300.00**	**357.41**	**107223.00**
	Basic Rate	**347**							
	3% Area Weightage	**10.41**							
	Total	**357.41**							
2a	50-100mtrs	Rmtr	6	50.00			**300.00**	**455.26**	**136578.00**
	Basic Rate	**442**							
	3% Area Weightage	**13.26**							
	Total	**455.26**							
2b	100-150mtrs	Rmtr	6	50.00			**300.00**	**469.68**	**140904.00**
	Basic Rate	**456**							
	3% Area Weightage	**13.68**							
	Total	**469.68**							
2c	150-200mtrs	Rmtr	6	50.00			**300.00**	**552.08**	**165624.00**
	Basic Rate	**536**							
	3% Area Weightage	**16.08**							
	Total	**552.08**							
2d	200-250mtrs	Rmtr	6	50.00			**300.00**	**653.02**	**195906.00**
	Basic Rate	**634**							
	3% Area Weightage	**19.02**							
	Total	**653.02**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
2e	250-300mtrs	Rmtr	6	50.00			**300.00**	**721.00**	**216300.00**
	Basic Rate	**700**							
	3% Area Weightage	**21**							
	Total	**721.00**							
2f	300-350mtrs	Rmtr	6	50.00			**300.00**	**849.75**	**254925.00**
	Basic Rate	**825**							
	3% Area Weightage	**24.75**							
	Total	**849.75**							
2g	350-400mtrs	Rmtr	6	50.00			**300.00**	**927.00**	**278100.00**
	Basic Rate	**900**							
	3% Area Weightage	**27**							
	Total	**927.00**							
3	Supply of ISI Mark nominal bore, plain end steel casing pipe-grade of steel Fe 410 of wall thickness conforming to IS 4270-2001 and latest amendments, electrical resistance welded steel tube material and conforming to IS 1387-1993 and manufactured by basic open hearth electric or basic oxygen process in random length of 5 to 7m. Both ends threaded conforming to IS 554-1985, one end fixed with socket conforming to IS 4270-2001 and the other end with screwed pipes. All pipes shall be resonably free from defects. The tubes shall be resonably straight and should be with ISI marking weighing 25.10kg/m. (exclusive of all taxes and duties). Prices include Collar-Medium duty 175mm dia x 5.4mm thick - Rs.950.00 complete and as per the directions of the Engineer-in-charge of the work.(P.No-338, Sl.No-15.85,RWS 19-20 SR)								
		Rmtr	6	60.00			**360.00**	**1364.75**	**491310.00**
	Basic Rate	**1325**							
	3% Area Weightage	**39.75**							
	Total	**1364.75**							
4	PVC Pipes 10kg/sqm 250mm outerdia(PWD SR 2018-19 XXXV/892 Code 3008)								
		m	6	10.00			**60.00**	**2203.39**	**132204.00**
5	Providing and laying at site of work MS casing caps as per IS 1239 (part-II) 1982 with all latest amendments if any for any dia. The thickness of plate used for covering one end shall be 3mm (minimum). The dimensions of caps and colars shall be strictly as per IS 1239 (Part-II) 1982 with all amendments including cost of material and labour charges for fixing, if any etc. complete with all lead and lifts and as directed by the Engineer in charge(P.No-338,Sl.No-15.87,RWS 19-20 SR)								
		Each	6				**6**	**103.00**	**618.00**
	Basic Rate	**100.00**							
	3% Area Weightage	**3.00**							
	Total	**103.00**							
6	Fabrication supplying and mounting MS box of 16 SWG suitable for floor /wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primer paint and finally finished with approved colour enamelled metal paint etc., complete box of 21600 sqcm with all lead and lift, loading, unloading and labour charges etc., complete and as per the directions of the Engineer-in-charge of the work.(P.No-30,I.No-5.42,KPWD Electrical SR 19-20)								
		Sq.cm	6	1100	20		132000	0.35	**46200.00**
7	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI union confirming to IS 1239-II, 1991 with latest amendments if any. (RDWS SR 2019-20 C-15/P-258 I. No. 15.78.5)								
		No	6	1			6	**180.25**	**1082.00**
	Basic Rate	**175.00**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	3% Area Weightage	**5.25**							
	Total	**180.25**							
8	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI hexagonal nipple confirming to IS 1239-II, 1991 with latest amendments if any. (RDWS SR 2019-20 C-15/P-258 I. No. 15.80.5)								
		No	6	3			18	**144.20**	**2596.00**
	Basic Rate	**140.00**							
	3% Area Weightage	**4.20**							
	Total	**144.20**							
9	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI elbow confirming to IS 1239-II, 1991 with latest amendments if any.(RDWS SR 2019-20 C-15/P-257 I. No. 15.73.5)								
		No	6	3			18	180.25	**3245.00**
	Basic Rate	**175.00**							
	3% Area Weightage	**5.25**							
	Total	**180.25**							
10	Labour charges for Erection, Electrification and commissioning works of Pump sets including aligning and balancing with all necessary erection of materials and labour including supply and erection of two pair of supporting clamps, bore well caps, cable clips and water tight gland cable protectors, bolts, nuts, valve and gauges, tools and equipments etc., involved in the job. as per specifications, with testing of as per instructions of engineer incharge of work(P.No - 130, I.No-12.16,RWS 19-20 SR)								
		Job	6				**6**	**5819.50**	**34917.00**
	Basic Rate	**5650**							
	3% Area Weightage	**169.5**							
	Total	**5819.5**							
11	Labour charges for Erection of outdoor type panel board and meter board units with all necessary materials and labour tools and equipments including providing cement concrete foundation bed etc., complete. as per specifications, with testing of as per instructions of engineer incharge of work(P.No - 131, I.No-12.18,RWS 19-20 SR)								
		Job	6				**6**	**1233.94**	**7404.00**
	Basic Rate	**1198**							
	3% Area Weightage	**35.94**							
	Total	**1233.94**							
12	Supplying of 1.1KV LT UG cable XPLE or heat resistant PVC Insulated PVC eatruded inner sheath armoured UG LT cable as per IS -1554(Part-1) or IS-7098 Part-1,Armouring strip thickness in average +5% and resistivity 14ohms/kms(max) as per IS -3975 4 core 16sqmm (Ele SR 2019-20 P-No 40 I/No-6.4.4)								
		Rmtr	6	45.00			**270.00**	**150.00**	**40500.00**
13	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe/ stone pipe / on wall/ on pole as required 6 sqmm to 16 sqmm. (Ele SR OF 2019-20 P-No 41 I/No-6.5.1)								
		Rmtr	6	45.00			**270.00**	**11.88**	**3208.00**
14	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete cutting road surfaces(P.No - 41, I.No -6.6.3, KPWD Electrical SR 19-20)								
		Mtr	6	45.00			**270.00**	**82.00**	**22140.00**
15	Supplying and fixing of class A GI pipe on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV class 40mm (P.No - 41, I.No -6.9.1, KPWD Electrical SR 19-20)								
		Mtr	6	4.00			**24.00**	**335.00**	**8040.00**

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
16	Earthing: Supplying and fixing and wiring earth electrode for grounding circuits IC cutouts and other equipments on the meter board in the pit. The pits should be filled up with equal proportion of salt and charcoal 150mm around the pipe to complete depth. The connection from the pipe to the conduits etc. is to established through GI wire of sizes as per clause 7.3.3 of IS 732 using 12mm bolts, nuts, washers and check nuts, the pipe shall have 16 through holes of 12mm dia.(P.No - 131, I.No-12.23,RWS 19-20 SR)								
		Nos	6				6	3741.99	22452.00
	Basic Rate	**3633**							
	3% Area Weightage	**108.99**							
	Total	**3741.99**							
17	Providing, Supplying and fixing LT cast iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc.with all necessary materials and labour tools and equipments . as per specifications, with testing of as per instructions of engineer incharge of work a) 3½x6 Sqmm (P.No - 131, I.No-12.22(a),RWS 19-20 SR)								
		Nos	6				6	511.91	3072.00
	Basic Rate	**497**							
	3% Area Weightage	**14.91**							
	Total	**511.91**							
18	Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc.,Size 20 x 20 x 2.5 inches with all lead and lift, loading, unloading and labour charges etc., complete and as per the directions of the Engineer-in-charge of the work(P.No - 24, I.No -5.6.6, KPWD Electrical SR 19-20)								
		Nos	6				6	292.00	1752.00
19	Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 20 HP 40 Stage(PWD SR 18-19, P.No.XLII Sl.no,60)								
		Nos	6				6	90595	543570.00
20	Supply and delivery of galvanized mild steel tubes of 6 mtr standard length heavy class (C Class) as per IS 1239 (Part-I) 1990 with latest amendments with ISI Mark (one end fitted with heavy duty collar and other end fitted with protective cover) (50mm) (P.No - 130, I.No-12.11(a),RWS 19-20 SR)								
		Rmtr	6	59.00			354.00	2861.34	1012915.00
	Basic Rate	**2778**							
	3% Area Weightage	**83.34**							
	Total	**2861.34**							
21	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to IS:8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100Volts as per IS-694:1990.complete and as per the directions of the Engineer-in-charge of the work(P.No - 7, I.No -2.6.4, KPWD Electrical SR 19-20)								
		Mtr	6	738.00			4428.00	205.00	907740.00

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
22	Supplying & delivery at site brand new / Essen / lotus sunsines/Adarsh/Gk controls best indigenous make combine energy meter-cum-control panel board unit of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph,50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key ribs should be provided inside the door canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz,380/440 AC supply shall be consisted etc., completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above Up to 20HP with star delta starter (MR) Page No.XLVII, Sl No.13, PWD SR 2018-19								
		Nos	6				**6.00**	**21000.00**	**126000.00**
23	Supply and delivery at site of brand new best make gate valve as per IS 778/1984 with ISI Mark and as per its latest amendments a)size 50mm (P.No - 128, I.No-12.05(a),RWS 19-20 SR)								
		Each	6				**6**	**1225.70**	**7355.00**
	Basic Rate	**1190**							
	3% Area Weightage	**35.7**							
	Total	**1225.7**							
24	Supply and delivery at site of brand new best make non-return valve as per IS 778/1984 with ISI Mark and as per its latest amendments a)size 50mm (P.No - 129, I.No-12.06(a),RWS 19-20 SR)								
		Each	6				**6.00**	**1210.25**	**7262.00**
	Basic Rate	**1175**							
	3% Area Weightage	**35.25**							
	Total	**1210.25**							
25	Supply and delivery at site delivery of best indigenous brand new MCB (Miniature Circuit Breakers) of required capacity as per IS 88228/1978 and its latest amendments and with ISI Mark of 6/10/16/20/25/40 Amps with scalable box. (P.No - 130, I.No-12.10,RWS 19-20 SR)								
		Each	6				**6.00**	**1055.75**	**6335.00**
	Basic Rate	**1025**							
	3% Area Weightage	**30.75**							
	Total	**1055.75**							
26	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in Ordinary soil not exceeding 1.5m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specifications(P.No - 6, I.No - 2.3, PWD SR 18-19)								
	For Replacing/extension of pipeline	Cum	6	265.00	0.60	0.75	715.50		
	For Connecting borewell	Cum	6	200.00	0.60	0.75	540.00		
	Sub total						**1255.50**	**316.94**	**397919.00**
	Basic Rate	**299**							
	6% Area Weightage	**17.94**							
	Total	**316.94**							
27	Providing and installing at site of work 63mm (0.662) PVC Pipes of 6kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including joining of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete (P.No - 89, Sl.No - 10.01.2,RWS 19-20)								

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	For Replacing/extension of pipeline	Mtr	6	265.00			1590.00		
	For Connecting borewell	Mtr	6	200.00			1200.00		
	Sub total						**2790.00**	**126.69**	**353466.00**
	Basic Rate	**123**							
	3% Area Weightage	**3.69**							
	Total	**126.69**							
28	Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications (P.No - 7, I.No - 2.11, PWD SR 18-19)								
	For Replacing/extension of pipeline	Cum	6	265.00	0.60	0.75	715.50		
	For Connecting borewell	Cum	6	200.00	0.60	0.75	540.00		
	Sub total						**1255.50**	**128.26**	**161031.00**
	Basic Rate	**121**							
	6% Area Weightage	**7.26**							
	Total	**128.26**							
29	Cutting of road surface for pipeline trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc. in the following classification. (RDWS SR 2019-20 Pg No.08 I No.2.26) Cutting Asphalt Road Surface(RDWS SR 2019-20Pg No.08 I No.2.26.2)								
		Cum	6	100	0.6	0.15	**54.00**	**574.52**	**31025.00**
	Basic Rate	**542.00**							
	6% Area Weightage	**32.52**							
	Total	**574.52**							
30	Earthwork excavation in soil, clay, sand, shedu soil, soft murrum, including shoring, strutting, barricading, danger lighting, bailing out water wherever necessary with stacking the materials as directed upto a lead of 50 Mtr and lift of 1.5 Mtr etc., complete.(RDWS SR 2019-20Pg No.08 I No.11.13)								
	For Water Recharge	Cum	6	3.14x1.80x1.80/4		3.00	45.78	356.38	**16316.00**
	Basic Rate	**346**							
	3% Area Weightage	**10.38**							
	Total	**356.38**							
31	Add for additional lift charges for every lift of 1.50 M or part thereof beyond 1.50 Mtr to 10.50 Mtr (RDWS SR 2019-20Pg No.08 I No.11.13.1)								
	For Water Recharge Pits,	Cum	6	3.14x1.80x1.80/4		1.50	22.89	58.71	**1344.00**
	Basic Rate	**57.00**							
	3% Area Weightage	**1.71**							
	Total	**58.71**							
32	Providing and laying in position plain cement concrete of grade M 10 with cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregtes @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, including cost of all materials, labour, HOM of machinery, curing,lowering to any depth, dewatering etc., complete as per specifications with all lead and lifts for Foundation of steining. (RDWS SR 2019-20Pg No.08 I No.11.17)								
	For Water Recharge Pits,	Cum	6	3.14x1.2	0.15	0.15	0.51	6213.99	**3161.00**

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	Basic Rate	**6033.00**							
	3% Area Weightage	**180.99**							
	Total	**6213.99**							
33	100 mm and down nominal size (RDWS SR 2019-20,P No.I item No 23)								
	For Water Recharge Pits.	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
						Total	**4.07**	**1017.25**	**4140.00**
	Basic Rate	**987.62**							
	3% Area Weightage	**29.63**							
	Total	**1017.25**							
34	40 mm nominal size stone aggregates ((RDWS SR 2019-20 P No I item No 25)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
	Filter media around rings		6	3.14x1.4	0.40	2.70	7.12		
						Total	**11.19**	**1124.17**	**12581.00**
	Basic Rate	**1091.43**							
	3% Area Weightage	**32.74**							
	Total	**1124.17**							
35	20 mm nominal size stone aggregates ((RDWS SR 2019-20,P No I item No 28)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
						Total	**4.07**	**1124.17**	**4575.00**
	Basic Rate	**1091.43**							
	3% Area Weightage	**32.74**							
	Total	**1124.17**							
36	6 mm nominal size stone aggregates ((RDWS SR 2019-20,P No I item No 31)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
						Total	**4.07**	**1124.17**	**4575.00**
	Basic Rate	**1091.43**							
	3% Area Weightage	**32.74**							
	Total	**1124.17**							
37	KSRB 2.6: Providing and filling sand (RDWS SR 2019-20,P No II.item No 2d 51)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.50	3.39		
						Total	**3.39**	**1731.38**	**5872.00**
	Basic Rate	**1680.95**							
	3% Area Weightage	**50.43**							
	Total	**1731.38**							
38	Supplying & errection of RCC rings for well steining of 0.3 Mtr Depth using M-20 grade concrete using clean graded granite or trap or jelly of approved quality 20mm and down size well compacted including centering, formwork and plastering for both faces with C.M 1:3 proportion as per design using 6.50mm M.S. coil at the rate of 10 Kgs/ring including cost of steel and fabrication, bailing out of water, errection etc., complete. For 1.20m dia (clear) rings of steining thickness 0.075mm upto 18 M depth(RDWS SR 2019-20Pg No.08 I No.11.20.3)								
	RCC Pits,	Each	60				60.00		
						Total	**60.00**	**1142.27**	**68537.00**
	Basic Rate	**1109.00**							
	3% Area Weightage	**33.27**							
	Total	**1142.27**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
39	KSRB 7.9 : Providing and fixing M.S.grill work for windows and ventilators weighing 21kg/sqm using M.S. flats, or M.S. square rods, or combination of M.S. flats and square rods as per approved design, drawing including cutting steel sections and welding the same to required pattern with a coat of red lead primer, cost of materials, fixtures, labour and HOM complete as per specifications. Specification No.KBS 7.12 (p.g No 34.item No 7.9)								
	RCC Pits,	Kgs	6	3.14x1.20x1.20/4			6.78		
							6.78		
						Total=1.13 x21kg/sqm	**23.73**	100.70	**2390.00**
	Basic Rate	**95.00**							
	6% Area Weightage	**5.70**							
	Total	**100.70**							
	BESCOM Charges	**Nos**	6				**6**	**20000**	**120000.00**
								Total of Other SR Items including GST Unit Rate	**120000.00**
								Total of PRED 19-20,Electrical SR 19-20,PWD SR 2018-19 Items	**6017696.00**
								Sub Total	**6137696.00**
								Add 12% GST for PRED 19-20,Electrical SR 19-20,PWD SR 2018-19 Items	**722124.00**
								Total	**6859820.00**
								Add 1% DPR charges	**70000.00**
								Add 1% PMC charges	**70000.00**
								Miscellaneous and Unforeseen charges	**180.00**
								Grand Total	**7000000.00**

CERTIFICATE:

1) The work spot has been inspected and found to be necessary

2) The work spot comes under B.B.M.P

3) The provisions made in the estimate are necessary and minimum.

4) The estimate is based on C.S.R of 2018-2019, PWD Electrical 2019-20,RDWS 2019-20, approved Rate and Issused Rates.

Assistant Engineer
BBMP

Assistant Executive Engineer
BBMP

Executive Engineer
BBMP

RUDRAPRASAD CONSULTANTS
BANGALORE

DETAILED ESTIMATE

For the Work of

"Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division"

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK : Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Kattegenahalli Surrounding Area in Ward No-05 Byatarayanapura Sub Division

								Estimation Cost.Rs	7000000.00
Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
1	Geophysical Investigation of site for sinking Borewell Geophysical Investigation of site for sinking Borewell for supplying drinking water to the habitation either through a hand pump, Mini Water Supply scheme, or Piped Water Supply Scheme by vertical electrical sounding by adopting venner or Schlumberger's method, including reconnaissance survey of geological formation, geophysical investigation of existing ground water in the vicinity, its quality, quantity & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation incluing an extra depth of 1.0 metre in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site, engaging technical personal and labour required etc., complete and as per the directions of the Engineer-in-charge of the work.(P.No - 148, I.No-13.04,RWS 19-20 SR)								
	Kattegenahalli Surrounding	Each BW	6				6	3881.04	23287.00
	Basic Rate	**3768**							
	3% Area Weightage	**113.04**							
	Total	**3881.04**							
2	Sinking of Borewell of 165mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burdern. Fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicle, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (Excluding cost of casing pipes, collars, cap etc., complete), complete and as per the directions of the Engineer-in-charge of the work .(P.No - 148, I.No-13.01,RWS 19-20 SR)								
	0-50mtrs	Rmtr	6	50.00			300.00	357.41	107223.00
	Basic Rate	**347**							
	3% Area Weightage	**10.41**							
	Total	**357.41**							
2a	50-100mtrs	Rmtr	6	50.00			300.00	455.26	136578.00
	Basic Rate	**442**							
	3% Area Weightage	**13.26**							
	Total	**455.26**							
2b	100-150mtrs	Rmtr	6	50.00			300.00	469.68	140904.00
	Basic Rate	**456**							
	3% Area Weightage	**13.68**							
	Total	**469.68**							
2c	150-200mtrs	Rmtr	6	50.00			300.00	552.08	165624.00
	Basic Rate	**536**							
	3% Area Weightage	**16.08**							
	Total	**552.08**							
2d	200-250mtrs	Rmtr	6	50.00			300.00	653.02	195906.00
	Basic Rate	**634**							
	3% Area Weightage	**19.02**							
	Total	**653.02**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
2e	250-300mtrs	Rmtr	6	50.00			**300.00**	**721.00**	**216300.00**
	Basic Rate	**700**							
	3% Area Weightage	**21**							
	Total	**721.00**							
2f	300-350mtrs	Rmtr	6	50.00			**300.00**	**849.75**	**254925.00**
	Basic Rate	**825**							
	3% Area Weightage	**24.75**							
	Total	**849.75**							
2g	350-400mtrs	Rmtr	6	50.00			**300.00**	**927.00**	**278100.00**
	Basic Rate	**900**							
	3% Area Weightage	**27**							
	Total	**927.00**							
3	Supply of ISI Mark nominal bore, plain end steel casing pipe-grade of steel Fe 410 of wall thickness conforming to IS 4270-2001 and latest amendments, electrical resistance welded steel tube material and conforming to IS 1387-1993 and manufactured by basic open hearth electric or basic oxygen process in random length of 5 to 7m. Both ends threaded conforming to IS 554-1985, one end fixed with socket conforming to IS 4270-2001 and the other end with screwed pipes. All pipes shall be resonably free from defects. The tubes shall be resonably straight and should be with ISI marking weighing 25.10kg/m. (exclusive of all taxes and duties). Prices include Collar-Medium duty 175mm dia x 5.4mm thick - Rs.950.00 complete and as per the directions of the Engineer-in-charge of the work.(P.No-338, Sl.No-15.85,RWS 19-20 SR)								
		Rmtr	6	60.00			**360.00**	**1364.75**	**491310.00**
	Basic Rate	**1325**							
	3% Area Weightage	**39.75**							
	Total	**1364.75**							
4	PVC Pipes 10kg/sqm 250mm outerdia(PWD SR 2018-19 XXXV/892 Code 3008)								
		m	6	10.00			**60.00**	**2203.39**	**132204.00**
5	Providing and laying at site of work MS casing caps as per IS 1239 (part-II) 1982 with all latest amendments if any for any dia. The thickness of plate used for covering one end shall be 3mm (minimum). The dimensions of caps and colars shall be strictly as per IS 1239 (Part-II) 1982 with all amendments including cost of material and labour charges for fixing, if any etc. complete with all lead and lifts and as directed by the Engineer in charge(P.No-338,Sl.No-15.87,RWS 19-20 SR)								
		Each	6				**6**	**103.00**	**618.00**
	Basic Rate	**100.00**							
	3% Area Weightage	**3.00**							
	Total	**103.00**							
6	Fabrication supplying and mounting MS box of 16 SWG suitable for floor /wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primer paint and finally finished with approved colour enamelled metal paint etc., complete box of 21600 sqcm with all lead and lift, loading, unloading and labour charges etc., complete and as per the directions of the Engineer-in-charge of the work.(P.No-30,I.No-5.42,KPWD Electrical SR 19-20)								
		Sq.cm	6	1100	20		132000	0.35	**46200.00**
7	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI union confirming to IS 1239-II, 1991 with latest amendments if any. (RDWS SR 2019-20 C-15/P-258 I. No. 15.78.5)								
		No	6	1			6	**180.25**	**1082.00**
	Basic Rate	**175.00**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	3% Area Weightage	**5.25**							
	Total	**180.25**							
8	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI hexagonal nipple confirming to IS 1239-II, 1991 with latest amendments if any. (RDWS SR 2019-20 C-15/P-258 I. No. 15.80.5)								
		No	6	3			18	**144.20**	**2596.00**
	Basic Rate	**140.00**							
	3% Area Weightage	**4.20**							
	Total	**144.20**							
9	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI elbow confirming to IS 1239-II, 1991 with latest amendments if any.(RDWS SR 2019-20 C-15/P-257 I. No. 15.73.5)								
		No	6	3			18	180.25	**3245.00**
	Basic Rate	**175.00**							
	3% Area Weightage	**5.25**							
	Total	**180.25**							
10	Labour charges for Erection, Electrification and commissioning works of Pump sets including aligning and balancing with all necessary erection of materials and labour including supply and erection of two pair of supporting clamps, bore well caps, cable clips and water tight gland cable protectors, bolts, nuts, valve and gauges, tools and equipments etc., involved in the job. as per specifications, with testing of as per instructions of engineer incharge of work(P.No - 130, I.No-12.16,RWS 19-20 SR)								
		Job	6				**6**	**5819.50**	**34917.00**
	Basic Rate	**5650**							
	3% Area Weightage	**169.5**							
	Total	**5819.5**							
11	Labour charges for Erection of outdoor type panel board and meter board units with all necessary materials and labour tools and equipments including providing cement concrete foundation bed etc., complete. as per specifications, with testing of as per instructions of engineer incharge of work(P.No - 131, I.No-12.18,RWS 19-20 SR)								
		Job	6				**6**	**1233.94**	**7404.00**
	Basic Rate	**1198**							
	3% Area Weightage	**35.94**							
	Total	**1233.94**							
12	Supplying of 1.1KV LT UG cable XPLE or heat resistant PVC Insulated PVC eatruded inner sheath armoured UG LT cable as per IS -1554(Part-1) or IS-7098 Part-1,Armouring strip thickness in average +5% and resistivity 14ohms/kms(max) as per IS -3975 4 core 16sqmm (Ele SR 2019-20 P-No 40 I/No-6.4.4)								
		Rmtr	6	45.00			**270.00**	**150.00**	**40500.00**
13	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe/ stone pipe / on wall/ on pole as required 6 sqmm to 16 sqmm. (Ele SR OF 2019-20 P-No 41 I/No-6.5.1)								
		Rmtr	6	45.00			**270.00**	**11.88**	**3208.00**
14	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete cutting road surfaces(P.No - 41, I.No -6.6.3, KPWD Electrical SR 19-20)								
		Mtr	6	45.00			**270.00**	**82.00**	**22140.00**
15	Supplying and fixing of class A GI pipe on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV class 40mm (P.No - 41, I.No -6.9.1, KPWD Electrical SR 19-20)								
		Mtr	6	4.00			**24.00**	**335.00**	**8040.00**

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
16	Earthing: Supplying and fixing and wiring earth electrode for grounding circuits IC cutouts and other equipments on the meter board in the pit. The pits should be filled up with equal proportion of salt and charcoal 150mm around the pipe to complete depth. The connection from the pipe to the conduits etc. is to established through GI wire of sizes as per clause 7.3.3 of IS 732 using 12mm bolts, nuts, washers and check nuts, the pipe shall have 16 through holes of 12mm dia.(P.No - 131, I.No-12.23,RWS 19-20 SR)								
		Nos	6				6	3741.99	22452.00
	Basic Rate	**3633**							
	3% Area Weightage	**108.99**							
	Total	**3741.99**							
17	Providing, Supplying and fixing LT cast iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc.with all necessary materials and labour tools and equipments . as per specifications, with testing of as per instructions of engineer incharge of work a) 3½x6 Sqmm (P.No - 131, I.No-12.22(a),RWS 19-20 SR)								
		Nos	6				6	511.91	3072.00
	Basic Rate	**497**							
	3% Area Weightage	**14.91**							
	Total	**511.91**							
18	Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc.,Size 20 x 20 x 2.5 inches with all lead and lift, loading, unloading and labour charges etc., complete and as per the directions of the Engineer-in-charge of the work(P.No - 24, I.No -5.6.6, KPWD Electrical SR 19-20)								
		Nos	6				6	292.00	1752.00
19	Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 20 HP 40 Stage(PWD SR 18-19, P.No.XLII Sl.no,60)								
		Nos	6				6	90595	543570.00
20	Supply and delivery of galvanized mild steel tubes of 6 mtr standard length heavy class (C Class) as per IS 1239 (Part-I) 1990 with latest amendments with ISI Mark (one end fitted with heavy duty collar and other end fitted with protective cover) (50mm) (P.No - 130, I.No-12.11(a),RWS 19-20 SR)								
		Rmtr	6	59.00			354.00	2861.34	1012915.00
	Basic Rate	**2778**							
	3% Area Weightage	**83.34**							
	Total	**2861.34**							
21	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to IS:8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100Volts as per IS-694:1990.complete and as per the directions of the Engineer-in-charge of the work(P.No - 7, I.No -2.6.4, KPWD Electrical SR 19-20)								
		Mtr	6	738.00			4428.00	205.00	907740.00

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
22	Supplying & delivery at site brand new / Essen / lotus sunsines/Adarsh/Gk controls best indigenous make combine energy meter-cum-control panel board unit of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph,50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key ribs should be provided inside the door canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz,380/440 AC supply shall be consisted etc., completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above Up to 20HP with star delta starter (MR) Page No.XLVII, Sl No.13, PWD SR 2018-19								
		Nos	6				**6.00**	**21000.00**	**126000.00**
23	Supply and delivery at site of brand new best make gate valve as per IS 778/1984 with ISI Mark and as per its latest amendments a)size 50mm (P.No - 128, I.No-12.05(a),RWS 19-20 SR)								
		Each	6				**6**	**1225.70**	**7355.00**
	Basic Rate	**1190**							
	3% Area Weightage	**35.7**							
	Total	**1225.7**							
24	Supply and delivery at site of brand new best make non-return valve as per IS 778/1984 with ISI Mark and as per its latest amendments a)size 50mm (P.No - 129, I.No-12.06(a),RWS 19-20 SR)								
		Each	6				**6.00**	**1210.25**	**7262.00**
	Basic Rate	**1175**							
	3% Area Weightage	**35.25**							
	Total	**1210.25**							
25	Supply and delivery at site delivery of best indigenous brand new MCB (Miniature Circuit Breakers) of required capacity as per IS 88228/1978 and its latest amendments and with ISI Mark of 6/10/16/20/25/40 Amps with scalable box. (P.No - 130, I.No-12.10,RWS 19-20 SR)								
		Each	6				**6.00**	**1055.75**	**6335.00**
	Basic Rate	**1025**							
	3% Area Weightage	**30.75**							
	Total	**1055.75**							
26	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in Ordinary soil not exceeding 1.5m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specifications(P.No - 6, I.No - 2.3, PWD SR 18-19)								
	For Replacing/extension of pipeline	Cum	6	265.00	0.60	0.75	715.50		
	For Connecting borewell	Cum	6	200.00	0.60	0.75	540.00		
	Sub total						**1255.50**	**316.94**	**397919.00**
	Basic Rate	**299**							
	6% Area Weightage	**17.94**							
	Total	**316.94**							
27	Providing and installing at site of work 63mm (0.662) PVC Pipes of 6kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including joining of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete (P.No - 89, Sl.No - 10.01.2,RWS 19-20)								

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	For Replacing/extension of pipeline	Mtr	6	265.00			1590.00		
	For Connecting borewell	Mtr	6	200.00			1200.00		
	Sub total						**2790.00**	**126.69**	**353466.00**
	Basic Rate	**123**							
	3% Area Weightage	**3.69**							
	Total	**126.69**							
28	Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications (P.No - 7, I.No - 2.11, PWD SR 18-19)								
	For Replacing/extension of pipeline	Cum	6	265.00	0.60	0.75	715.50		
	For Connecting borewell	Cum	6	200.00	0.60	0.75	540.00		
	Sub total						**1255.50**	**128.26**	**161031.00**
	Basic Rate	**121**							
	6% Area Weightage	**7.26**							
	Total	**128.26**							
29	Cutting of road surface for pipeline trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc. in the following classification. (RDWS SR 2019-20 Pg No.08 I No.2.26) Cutting Asphalt Road Surface(RDWS SR 2019-20Pg No.08 I No.2.26.2)								
		Cum	6	100	0.6	0.15	**54.00**	**574.52**	**31025.00**
	Basic Rate	**542.00**							
	6% Area Weightage	**32.52**							
	Total	**574.52**							
30	Earthwork excavation in soil, clay, sand, shedu soil, soft murrum, including shoring, strutting, barricading, danger lighting, bailing out water wherever necessary with stacking the materials as directed upto a lead of 50 Mtr and lift of 1.5 Mtr etc., complete.(RDWS SR 2019-20Pg No.08 I No.11.13)								
	For Water Recharge	Cum	6	3.14x1.80x1.80/4		3.00	45.78	356.38	**16316.00**
	Basic Rate	**346**							
	3% Area Weightage	**10.38**							
	Total	**356.38**							
31	Add for additional lift charges for every lift of 1.50 M or part thereof beyond 1.50 Mtr to 10.50 Mtr (RDWS SR 2019-20Pg No.08 I No.11.13.1)								
	For Water Recharge Pits,	Cum	6	3.14x1.80x1.80/4		1.50	22.89	58.71	**1344.00**
	Basic Rate	**57.00**							
	3% Area Weightage	**1.71**							
	Total	**58.71**							
32	Providing and laying in position plain cement concrete of grade M 10 with cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregtes @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, including cost of all materials, labour, HOM of machinery, curing,lowering to any depth, dewatering etc., complete as per specifications with all lead and lifts for Foundation of steining. (RDWS SR 2019-20Pg No.08 I No.11.17)								
	For Water Recharge Pits,	Cum	6	3.14x1.2	0.15	0.15	0.51	6213.99	**3161.00**

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	Basic Rate	**6033.00**							
	3% Area Weightage	**180.99**							
	Total	**6213.99**							
33	100 mm and down nominal size (RDWS SR 2019-20,P No.I item No 23)								
	For Water Recharge Pits.	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
						Total	**4.07**	**1017.25**	**4140.00**
	Basic Rate	**987.62**							
	3% Area Weightage	**29.63**							
	Total	**1017.25**							
34	40 mm nominal size stone aggregates ((RDWS SR 2019-20 P No I item No 25)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
	Filter media around rings		6	3.14x1.4	0.40	2.70	7.12		
						Total	**11.19**	**1124.17**	**12581.00**
	Basic Rate	**1091.43**							
	3% Area Weightage	**32.74**							
	Total	**1124.17**							
35	20 mm nominal size stone aggregates ((RDWS SR 2019-20,P No I item No 28)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
						Total	**4.07**	**1124.17**	**4575.00**
	Basic Rate	**1091.43**							
	3% Area Weightage	**32.74**							
	Total	**1124.17**							
36	6 mm nominal size stone aggregates ((RDWS SR 2019-20,P No I item No 31)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
						Total	**4.07**	**1124.17**	**4575.00**
	Basic Rate	**1091.43**							
	3% Area Weightage	**32.74**							
	Total	**1124.17**							
37	KSRB 2.6: Providing and filling sand (RDWS SR 2019-20,P No II.item No 2d 51)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.50	3.39		
						Total	**3.39**	**1731.38**	**5872.00**
	Basic Rate	**1680.95**							
	3% Area Weightage	**50.43**							
	Total	**1731.38**							
38	Supplying & errection of RCC rings for well steining of 0.3 Mtr Depth using M-20 grade concrete using clean graded granite or trap or jelly of approved quality 20mm and down size well compacted including centering, formwork and plastering for both faces with C.M 1:3 proportion as per design using 6.50mm M.S. coil at the rate of 10 Kgs/ring including cost of steel and fabrication, bailing out of water, errection etc., complete. For 1.20m dia (clear) rings of steining thickness 0.075mm upto 18 M depth(RDWS SR 2019-20Pg No.08 I No.11.20.3)								
	RCC Pits,	Each	60				60.00		
						Total	**60.00**	**1142.27**	**68537.00**
	Basic Rate	**1109.00**							
	3% Area Weightage	**33.27**							
	Total	**1142.27**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
39	KSRB 7.9 : Providing and fixing M.S.grill work for windows and ventilators weighing 21kg/sqm using M.S. flats, or M.S. square rods, or combination of M.S. flats and square rods as per approved design, drawing including cutting steel sections and welding the same to required pattern with a coat of red lead primer, cost of materials, fixtures, labour and HOM complete as per specifications. Specification No.KBS 7.12 (p.g No 34.item No 7.9)								
	RCC Pits,	Kgs	6	3.14x1.20x1.20/4			6.78		
							6.78		
						Total=1.13 x21kg/sqm	**23.73**	100.70	**2390.00**
	Basic Rate	**95.00**							
	6% Area Weightage	**5.70**							
	Total	**100.70**							
	BESCOM Charges	Nos	6				6	20000	120000.00
								Total of Other SR Items including GST Unit Rate	**120000.00**
								Total of PRED 19-20,Electrical SR 19-20,PWD SR 2018-19 Items	**6017696.00**
								Sub Total	**6137696.00**
								Add 12% GST for PRED 19-20,Electrical SR 19-20,PWD SR 2018-19 Items	**722124.00**
								Total	**6859820.00**
								Add 1% DPR charges	**70000.00**
								Add 1% PMC charges	**70000.00**
								Miscellaneous and Unforeseen charges	**180.00**
								Grand Total	**7000000.00**

CERTIFICATE:

1) The work spot has been inspected and found to be necessary

2) The work spot comes under B.B.M.P

3) The provisions made in the estimate are necessary and minimum.

4) The estimate is based on C.S.R of 2018-2019, PWD Electrical 2019-20,RDWS 2019-20, approved Rate and Issused Rates.

Assistant Engineer
BBMP

Assistant Executive Engineer
BBMP

Executive Engineer
BBMP

RUDRAPRASAD CONSULTANTS
BANGALORE

DETAILED ESTIMATE

For The Work Of

"Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division"

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK : Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Thanisandra Surrounding Area in Ward No-06 Byatarayanapura Sub Division

								Estimation Cost.Rs	7000000.00
Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
1	Geophysical Investigation of site for sinking Borewell Geophysical Investigation of site for sinking Borewell for supplying drinking water to the habitation either through a hand pump, Mini Water Supply scheme, or Piped Water Supply Scheme by vertical electrical sounding by adopting venner or Schlumberger's method, including reconnaissance survey of geological formation, geophysical investigation of existing ground water in the vicinity, its quality, quantity & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation incluing an extra depth of 1.0 metre in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site, engaging technical personal and labour required etc., complete and as per the directions of the Engineer-in-charge of the work.(P.No - 148, I.No-13.04,RWS 19-20 SR)								
	Anam Clave Layout	Each BW	1				**1**		
	Thanisandra near SVN School	Each BW	1				**1**		
	Muninagappa layout Saraipalya	Each BW	1				**1**		
	Bharathnagar Abubakar Masjid Surroundinf	Each BW	1				**1**		
	Rachenahalli Main road,Amma's Bakery Surrounding	Each BW	1				**1**		
	Gupta Layout/Rasool Sab Layout	Each BW	1				**1**		
	Sub Total						**6**	**3881.04**	**23287.00**
	Basic Rate	**3768**							
	3% Area Weightage	**113.04**							
	Total	**3881.04**							
2	Sinking of Borewell of 165mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burdern. Fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicle, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (Excluding cost of casing pipes, collars, cap etc., complete), complete and as per the directions of the Engineer-in-charge of the work .(P.No - 148, I.No-13.01,RWS 19-20 SR)								
	0-50mtrs	Rmtr	6	50.00			**300.00**	**357.41**	**107223.00**
	Basic Rate	**347**							
	3% Area Weightage	**10.41**							
	Total	**357.41**							
2a	50-100mtrs	Rmtr	6	50.00			**300.00**	**455.26**	**136578.00**
	Basic Rate	**442**							
	3% Area Weightage	**13.26**							
	Total	**455.26**							
2b	100-150mtrs	Rmtr	6	50.00			**300.00**	**469.68**	**140904.00**
	Basic Rate	**456**							
	3% Area Weightage	**13.68**							
	Total	**469.68**							
2c	150-200mtrs	Rmtr	6	50.00			**300.00**	**552.08**	**165624.00**
	Basic Rate	**536**							
	3% Area Weightage	**16.08**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	Total	**552.08**							
2d	200-250mtrs	Rmtr	6	50.00			**300.00**	**653.02**	**195906.00**
	Basic Rate	**634**							
	3% Area Weightage	**19.02**							
	Total	**653.02**							
2e	250-300mtrs	Rmtr	6	50.00			**300.00**	**721.00**	**216300.00**
	Basic Rate	**700**							
	3% Area Weightage	**21**							
	Total	**721.00**							
2f	300-350mtrs	Rmtr	6	50.00			**300.00**	**849.75**	**254925.00**
	Basic Rate	**825**							
	3% Area Weightage	**24.75**							
	Total	**849.75**							
2g	350-400mtrs	Rmtr	6	50.00			**300.00**	**927.00**	**278100.00**
	Basic Rate	**900**							
	3% Area Weightage	**27**							
	Total	**927.00**							
3	Supply of ISI Mark nominal bore, plain end steel casing pipe-grade of steel Fe 410 of wall thickness conforming to IS 4270-2001 and latest amendments, electrical resistance welded steel tube material and conforming to IS 1387- 1993 and manufactured by basic open hearth electric or basic oxygen process in random length of 5 to 7m. Both ends threaded conforming to IS 554-1985, one end fixed with socket conforming to IS 4270-2001 and the other end with screwed pipes. All pipes shall be resonably free from defects. The tubes shall be resonably straight and should be with ISI marking weighing 25.10kg/m. (exclusive of all taxes and duties). Prices include Collar-Medium duty 175mm dia x 5.4mm thick - Rs.950.00 complete and as per the directions of the Engineer-in-charge of the work.(P.No-338, Sl.No-15.85,RWS 19-20 SR)								
		Rmtr	6	60.00			**360.00**	**1364.75**	**491310.00**
	Basic Rate	**1325**							
	3% Area Weightage	**39.75**							
	Total	**1364.75**							
4	PVC Pipes 10kg/sqm 250mm outerdia(PWD SR 2018-19 XXXV/892 Code 3008)								
		m	6	10.00			**60.00**	**2203.39**	**132204.00**
5	Providing and laying at site of work MS casing caps as per IS 1239 (part-II) 1982 with all latest amendments if any for any dia. The thickness of plate used for covering one end shall be 3mm (minimum). The dimensions of caps and colars shall be strictly as per IS 1239 (Part-II) 1982 with all amendments including cost of material and labour charges for fixing, if any etc. complete with all lead and lifts and as directed by the Engineer in charge(P.No-338,Sl.No-15.87,RWS 19-20 SR)								
		Each	6				**6**	**103.00**	**618.00**
	Basic Rate	**100.00**							
	3% Area Weightage	**3.00**							
	Total	**103.00**							
6	Fabrication supplying and mounting MS box of 16 SWG suitable for floor /wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primer paint and finally finished with approved colour enamelled metal paint etc., complete box of 21600 sqcm with all lead and lift, loading, unloading and labour charges etc., complete and as per the directions of the Engineer-in-charge of the work.(P.No-30,I.No-5.42,KPWD Electrical SR 19-20)								
		Sq.cm	6	1100	20		132000	0.35	**46200.00**
7	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI union confirming to IS 1239-II, 1991 with latest amendments if any. (RDWS SR 2019-20 C-15/P-258 I. No. 15.78.5)								
		No	6	1			6	**180.25**	**1082.00**
	Basic Rate	**175.00**							
	3% Area Weightage	**5.25**							
	Total	**180.25**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
8	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI hexagonal nipple confirming to IS 1239-II, 1991 with latest amendments if any. (RDWS SR 2019-20 C-15/P-258 I. No. 15.80.5)								
		No	6	3			18	**144.20**	**2596.00**
	Basic Rate	**140.00**							
	3% Area Weightage	**4.20**							
	Total	**144.20**							
9	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI elbow confirming to IS 1239-II, 1991 with latest amendments if any.(RDWS SR 2019-20 C-15/P-257 I. No. 15.73.5)								
		No	6	3			18	180.25	**3245.00**
	Basic Rate	**175.00**							
	3% Area Weightage	**5.25**							
	Total	**180.25**							
10	Labour charges for Erection, Electrification and commissioning works of Pump sets including aligning and balancing with all necessary erection of materials and labour including supply and erection of two pair of supporting clamps, bore well caps, cable clips and water tight gland cable protectors, bolts, nuts, valve and gauges, tools and equipments etc., involved in the job. as per specifications, with testing of as per instructions of engineer incharge of work(P.No - 130, I.No-12.16,RWS 19-20 SR)								
		Job	6				**6**	**5819.50**	**34917.00**
	Basic Rate	**5650**							
	3% Area Weightage	**169.5**							
	Total	**5819.5**							
11	Labour charges for Erection of outdoor type panel board and meter board units with all necessary materials and labour tools and equipments including providing cement concrete foundation bed etc., complete. as per specifications, with testing of as per instructions of engineer incharge of work(P.No - 131, I.No-12.18,RWS 19-20 SR)								
		Job	6				**6**	**1233.94**	**7404.00**
	Basic Rate	**1198**							
	3% Area Weightage	**35.94**							
	Total	**1233.94**							
12	Supplying of 1.1KV LT UG cable XPLE or heat resistant PVC Insulated PVC eatruded inner sheath armoured UG LT cable as per IS -1554(Part-1) or IS-7098 Part-1,Armouring strip thickness in average +5% and resistivity 14ohms/kms(max) as per IS -3975 4 core 16sqmm (Ele SR 2019-20 P-No 40 I/No-6.4.4)								
		Rmtr	6	45.00			**270.00**	**150.00**	**40500.00**
13	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe/ stone pipe / on wall/ on pole as required 6 sqmm to 16 sqmm. (Ele SR OF 2019-20 P-No 41 I/No-6.5.1)								
		Rmtr	6	45.00			**270.00**	**11.88**	**3208.00**
14	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete cutting road surfaces(P.No - 41, I.No -6.6.3, KPWD Electrical SR 19-20)								
		Mtr	6	45.00			**270.00**	**82.00**	**22140.00**
15	Supplying and fixing of class A GI pipe on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV class 40mm (P.No - 41, I.No -6.9.1, KPWD Electrical SR 19-20)								
		Mtr	6	4.00			**24.00**	**335.00**	**8040.00**
16	Earthing: Supplying and fixing and wiring earth electrode for grounding circuits IC cutouts and other equipments on the meter board in the pit. The pits should be filled up with equal proportion of salt and charcoal 150mm around the pipe to complete depth. The connection from the pipe to the conduits etc. is to established through GI wire of sizes as per clause 7.3.3 of IS 732 using 12mm bolts, nuts, washers and check nuts, the pipe shall have 16 through holes of 12mm dia.(P.No - 131, I.No-12.23,RWS 19-20 SR)								
		Nos	6				**6**	**3741.99**	**22452.00**
	Basic Rate	**3633**							
	3% Area Weightage	**108.99**							
	Total	**3741.99**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
17	Providing, Supplying and fixing LT cast iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc.with all necessary materials and labour tools and equipments . as per specifications, with testing of as per instructions of engineer incharge of work a) 3½x6 Sqmm (P.No - 131, I.No-12.22(a),RWS 19-20 SR)								
		Nos	6				6	511.91	3072.00
	Basic Rate	**497**							
	3% Area Weightage	**14.91**							
	Total	**511.91**							
18	Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc.,Size 20 x 20 x 2.5 inches with all lead and lift, loading, unloading and labour charges etc., complete and as per the directions of the Engineer-in-charge of the work(P.No - 24, I.No -5.6.6, KPWD Electrical SR 19-20)								
		Nos	6				6	292.00	1752.00
19	Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 17.5 HP 30 Stage(PWD SR 18-19, P.No.XLII Sl.no,60)								
		Nos	6				6	72126.00	432756.00
20	Supply and delivery of galvanized mild steel tubes of 6 mtr standard length heavy class (C Class) as per IS 1239 (Part-I) 1990 with latest amendments with ISI Mark (one end fitted with heavy duty collar and other end fitted with protective cover) (50mm) (P.No - 130, I.No-12.11(a),RWS 19-20 SR)								
		Rmtr	6	59.00			354.00	2861.34	1012915.00
	Basic Rate	**2778**							
	3% Area Weightage	**83.34**							
	Total	**2861.34**							
21	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to IS:8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100Volts as per IS-694:1990.complete and as per the directions of the Engineer-in-charge of the work(P.No - 7, I.No -2.6.4, KPWD Electrical SR 19-20)								
		Mtr	6	738.00			4428.00	205.00	907740.00
22	Supplying & delivery at site brand new / Essen / lotus sunsines/Adarsh/Gk controls best indigenous make combine energy meter-cum-control panel board unit of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph,50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key ribs should be provided inside the door canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz,380/440 AC supply shall be consisted etc., completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above Up to 20HP with star delta starter (MR) Page No.XLVII, Sl No.13, PWD SR 2018-19								
		Nos	6				6.00	21000.00	126000.00
23	Supply and delivery at site of brand new best make gate valve as per IS 778/1984 with ISI Mark and as per its latest amendments a)size 50mm (P.No - 128, I.No-12.05(a),RWS 19-20 SR)								
		Each	6				6	1225.70	7355.00
	Basic Rate	**1190**							
	3% Area Weightage	**35.7**							
	Total	**1225.7**							
24	Supply and delivery at site of brand new best make non-return valve as per IS 778/1984 with ISI Mark and as per its latest amendments a)size 50mm (P.No - 129, I.No-12.06(a),RWS 19-20 SR)								
		Each	6				6.00	1210.25	7262.00
	Basic Rate	**1175**							
	3% Area Weightage	**35.25**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	Total	**1210.25**							
25	Supply and delivery at site delivery of best indigenous brand new MCB (Miniature Circuit Breakers) of required capacity as per IS 88228/1978 and its latest amendments and with ISI Mark of 6/10/16/20/25/40 Amps with scalable box. (P.No - 130, I.No-12.10,RWS 19-20 SR)								
		Each	6				**6.00**	**1055.75**	**6335.00**
	Basic Rate	**1025**							
	3% Area Weightage	**30.75**							
	Total	**1055.75**							
26	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in Ordinary soil not exceeding 1.5m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specifications(P.No - 6, I.No - 2.3, PWD SR 18-19)								
	For Replacing/extension of pipeline	Cum	6	321.00	0.60	0.75	866.70		
	For Connecting borewell	Cum	6	200.00	0.60	0.75	540.00		
	Sub total						**1406.70**	**316.94**	**445840.00**
	Basic Rate	**299**							
	6% Area Weightage	**17.94**							
	Total	**316.94**							
27	Providing and installing at site of work 63mm (0.662) PVC Pipes of 6kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including joining of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete (P.No - 89, Sl.No - 10.01.2,RWS 19-20)								
	For Replacing/extension of pipeline	Mtr	6	321.00			1926.00		
	For Connecting borewell	Mtr	6	200.00			1200.00		
	Sub total						**3126.00**	**126.69**	**396033.00**
	Basic Rate	**123**							
	3% Area Weightage	**3.69**							
	Total	**126.69**							
28	Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications (P.No - 7, I.No - 2.11, PWD SR 18-19)								
	For Replacing/extension of pipeline	Cum	6	321.00	0.60	0.75	866.70		
	For Connecting borewell	Cum	6	200.00	0.60	0.75	540.00		
	Sub total						**1406.70**	**128.26**	**180424.00**
	Basic Rate	**121**							
	6% Area Weightage	**7.26**							
	Total	**128.26**							
29	Cutting of road surface for pipeline trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc. in the following classification. (RDWS SR 2019-20 Pg No.08 I No.2.26) Cutting Asphalt Road Surface(RDWS SR 2019-20Pg No.08 I No.2.26.2)								
		Cum	6	100	0.6	0.15	**54.00**	**574.52**	**31025.00**
	Basic Rate	**542.00**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	6% Area Weightage	**32.52**							
	Total	**574.52**							
30	Earthwork excavation in soil, clay, sand, shedu soil, soft murrum, including shoring, strutting, barricading, danger lighting, bailing out water wherever necessary with stacking the materials as directed upto a lead of 50 Mtr and lift of 1.5 Mtr etc., complete.(RDWS SR 2019-20Pg No.08 I No.11.13)								
	For Water Recharge	Cum	6	3.14x1.80x1.80/4		3.00	45.78	356.38	**16316.00**
	Basic Rate	**346**							
	3% Area Weightage	**10.38**							
	Total	**356.38**							
31	Add for additional lift charges for every lift of 1.50 M or part thereof beyond 1.50 Mtr to 10.50 Mtr (RDWS SR 2019-20Pg No.08 I No.11.13.1)								
	For Water Recharge Pits,	Cum	6	3.14x1.80x1.80/4		1.50	22.89	58.71	**1344.00**
	Basic Rate	**57.00**							
	3% Area Weightage	**1.71**							
	Total	**58.71**							
32	Providing and laying in position plain cement concrete of grade M 10 with cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregtes @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, including cost of all materials, labour, HOM of machinery, curing,lowering to any depth, dewatering etc., complete as per specifications with all lead and lifts for Foundation of steining. (RDWS SR 2019-20Pg No.08 I No.11.17)								
	For Water Recharge Pits,	Cum	6	3.14x1.2	0.15	0.15	0.51	6213.99	**3161.00**
	Basic Rate	**6033.00**							
	3% Area Weightage	**180.99**							
	Total	**6213.99**							
33	100 mm and down nominal size (RDWS SR 2019-20,P No.I item No 23)								
	For Water Recharge Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
						Total	**4.07**	**1017.25**	**4140.00**
	Basic Rate	**987.62**							
	3% Area Weightage	**29.63**							
	Total	**1017.25**							
34	40 mm nominal size stone aggregates ((RDWS SR 2019-20 P No I item No 25)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
	Filter media around rings		6	3.14x1.4	0.40	2.70	7.12		
						Total	**11.19**	**1124.17**	**12581.00**
	Basic Rate	**1091.43**							
	3% Area Weightage	**32.74**							
	Total	**1124.17**							
35	20 mm nominal size stone aggregates ((RDWS SR 2019-20,P No I item No 28)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
						Total	**4.07**	**1124.17**	**4575.00**
	Basic Rate	**1091.43**							
	3% Area Weightage	**32.74**							
	Total	**1124.17**							
36	6 mm nominal size stone aggregates ((RDWS SR 2019-20,P No I item No 31)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
						Total	**4.07**	**1124.17**	**4575.00**
	Basic Rate	**1091.43**							
	3% Area Weightage	**32.74**							
	Total	**1124.17**							
37	KSRB 2.6: Providing and filling sand (RDWS SR 2019-20,P No II.item No 2d 51)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.50	3.39		
						Total	**3.39**	**1731.38**	**5872.00**
	Basic Rate	**1680.95**							
	3% Area Weightage	**50.43**							
	Total	**1731.38**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
38	Supplying & errection of RCC rings for well steining of 0.3 Mtr Depth using M-20 grade concrete using clean graded granite or trap or jelly of approved quality 20mm and down size well compacted including centering, formwork and plastering for both faces with C.M 1:3 proportion as per design using 6.50mm M.S. coil at the rate of 10 Kgs/ring including cost of steel and fabrication, bailing out of water, errection etc., complete. For 1.20m dia (clear) rings of steining thickness 0.075mm upto 18 M depth(RDWS SR 2019-20Pg No.08 I No.11.20.3)								
	RCC Pits,	Each	60				60.00		
						Total	**60.00**	**1142.27**	**68537.00**
	Basic Rate	**1109.00**							
	3% Area Weightage	**33.27**							
	Total	**1142.27**							
39	KSRB 7.9 : Providing and fixing M.S.grill work for windows and ventilators weighing 21kg/sqm using M.S. flats, or M.S. square rods, or combination of M.S. flats and square rods as per approved design, drawing including cutting steel sections and welding the same to required pattern with a coat of red lead primer, cost of materials, fixtures, labour and HOM complete as per specifications. Specification No.KBS 7.12 (p.g No 34.item No 7.9)								
	RCC Pits,	Kgs	6	3.14x1.20x1.20/4			6.78		
							6.78		
						Total=1.13 x21kg/sqm	**23.73**	100.70	**2390.00**
	Basic Rate	**95.00**							
	6% Area Weightage	**5.70**							
	Total	**100.70**							
	BESCOM Charges	**Nos**	6				**6**	**20000**	**120000.00**
								Total of Other SR Items including GST Unit Rate	**120000.00**
								Total of PRED 19-20,Electrical SR 19-20,PWD SR 2018-19 Items	**6016763.00**
								Sub Total	**6136763.00**
								Add 12% GST for PRED 19-20,Electrical SR 19-20,PWD SR 2018-19 Items	**722012.00**
								Total	**6858775.00**
								Add 1% DPR charges	**70000.00**
								Add 1% PMC charges	**70000.00**
								Miscellaneous and Unforeseen charges	**1225.00**
								Grand Total	**7000000.00**

CERTIFICATE:

1) The work spot has been inspected and found to be necessary

2) The work spot comes under B.B.M.P

3) The provisions made in the estimate are necessary and minimum.

4) The estimate is based on C.S.R of 2018-2019, PWD Electrical 2019-20,RDWS 2019-20, approved Rate and Issused Rates.

Assistant Engineer
BBMP

Assistant Executive Engineer
BBMP

Executive Engineer
BBMP

RUDRAPRASAD CONSULTANTS
BANGALORE

DETAILED ESTIMATE

For The Work Of

"Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division"

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK : Augmentation of Water Supply Through Borewell, Network of Pipelines and Ground Water Recharge Facilities in various Layout of Dasarahalli Surrounding Area in Ward No-06 Byatarayanapura Sub Division

									Estimation Cost.Rs	7000000.00
Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity		Rate	Amount
1	Geophysical Investigation of site for sinking Borewell Geophysical Investigation of site for sinking Borewell for supplying drinking water to the habitation either through a hand pump, Mini Water Supply scheme, or Piped Water Supply Scheme by vertical electrical sounding by adopting venner or Schlumberger's method, including reconnaissance survey of geological formation, geophysical investigation of existing ground water in the vicinity, its quality, quantity & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation incluing an extra depth of 1.0 metre in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site, engaging technical personal and labour required etc., complete and as per the directions of the Engineer-in-charge of the work.(P.No - 148, I.No-13.04,RWS 19-20 SR)									
	Ex-Serviceman layout	Each BW	1				**1**			
	Hegdenagar Grave yard	Each BW	1				**1**			
	Shabarinagar	Each BW	1				**1**			
	ShiradiSaiRatan Layout	Each BW	1				**1**			
	Dasarahalli surrounding	Each BW	1				**1**			
	Dasarahalli colony	Each BW	1				**1**			
	Sub Total						**6**		**3881.04**	**23287.00**
	Basic Rate	**3768**								
	3% Area Weightage	**113.04**								
	Total	**3881.04**								
2	Sinking of Borewell of 165mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burdern. Fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicle, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (Excluding cost of casing pipes, collars, cap etc., complete), complete and as per the directions of the Engineer-in-charge of the work .(P.No - 148, I.No-13.01,RWS 19-20 SR)									
	0-50mtrs	Rmtr	6	50.00			**300.00**		**357.41**	**107223.00**
	Basic Rate	**347**								
	3% Area Weightage	**10.41**								
	Total	**357.41**								
2a	50-100mtrs	Rmtr	6	50.00			**300.00**		**455.26**	**136578.00**
	Basic Rate	**442**								
	3% Area Weightage	**13.26**								
	Total	**455.26**								
2b	100-150mtrs	Rmtr	6	50.00			**300.00**		**469.68**	**140904.00**
	Basic Rate	**456**								
	3% Area Weightage	**13.68**								
	Total	**469.68**								
2c	150-200mtrs	Rmtr	6	50.00			**300.00**		**552.08**	**165624.00**
	Basic Rate	**536**								
	3% Area Weightage	**16.08**								

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	Total	**1210.25**							
25	Supply and delivery at site delivery of best indigenous brand new MCB (Miniature Circuit Breakers) of required capacity as per IS 88228/1978 and its latest amendments and with ISI Mark of 6/10/16/20/25/40 Amps with scalable box. (P.No - 130, I.No-12.10,RWS 19-20 SR)								
		Each	6				**6.00**	**1055.75**	**6335.00**
	Basic Rate	**1025**							
	3% Area Weightage	**30.75**							
	Total	**1055.75**							
26	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in Ordinary soil not exceeding 1.5m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specifications(P.No - 6, I.No - 2.3, PWD SR 18-19)								
	For Replacing/extension of pipeline	Cum	6	321.00	0.60	0.75	866.70		
	For Connecting borewell	Cum	6	200.00	0.60	0.75	540.00		
	Sub total						**1406.70**	**316.94**	**445840.00**
	Basic Rate	**299**							
	6% Area Weightage	**17.94**							
	Total	**316.94**							
27	Providing and installing at site of work 63mm (0.662) PVC Pipes of 6kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including joining of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete (P.No - 89, Sl.No - 10.01.2,RWS 19-20)								
	For Replacing/extension of pipeline	Mtr	6	321.00			1926.00		
	For Connecting borewell	Mtr	6	200.00			1200.00		
	Sub total						**3126.00**	**126.69**	**396033.00**
	Basic Rate	**123**							
	3% Area Weightage	**3.69**							
	Total	**126.69**							
28	Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications (P.No - 7, I.No - 2.11, PWD SR 18-19)								
	For Replacing/extension of pipeline	Cum	6	321.00	0.60	0.75	866.70		
	For Connecting borewell	Cum	6	200.00	0.60	0.75	540.00		
	Sub total						**1406.70**	**128.26**	**180424.00**
	Basic Rate	**121**							
	6% Area Weightage	**7.26**							
	Total	**128.26**							
29	Cutting of road surface for pipeline trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc. in the following classification. (RDWS SR 2019-20 Pg No.08 I No.2.26) Cutting Asphalt Road Surface(RDWS SR 2019-20Pg No.08 I No.2.26.2)								
		Cum	6	100	0.6	0.15	**54.00**	**574.52**	**31025.00**
	Basic Rate	**542.00**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	6% Area Weightage	**32.52**							
	Total	**574.52**							
30	Earthwork excavation in soil, clay, sand, shedu soil, soft murrum, including shoring, strutting, barricading, danger lighting, bailing out water wherever necessary with stacking the materials as directed upto a lead of 50 Mtr and lift of 1.5 Mtr etc., complete.(RDWS SR 2019-20Pg No.08 I No.11.13)								
	For Water Recharge	Cum	6	3.14x1.80x1.80/4		3.00	45.78	356.38	**16316.00**
	Basic Rate	**346**							
	3% Area Weightage	**10.38**							
	Total	**356.38**							
31	Add for additional lift charges for every lift of 1.50 M or part thereof beyond 1.50 Mtr to 10.50 Mtr (RDWS SR 2019-20Pg No.08 I No.11.13.1)								
	For Water Recharge Pits,	Cum	6	3.14x1.80x1.80/4		1.50	22.89	58.71	**1344.00**
	Basic Rate	**57.00**							
	3% Area Weightage	**1.71**							
	Total	**58.71**							
32	Providing and laying in position plain cement concrete of grade M 10 with cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregtes @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, including cost of all materials, labour, HOM of machinery, curing,lowering to any depth, dewatering etc., complete as per specifications with all lead and lifts for Foundation of steining. (RDWS SR 2019-20Pg No.08 I No.11.17)								
	For Water Recharge Pits,	Cum	6	3.14x1.2	0.15	0.15	0.51	6213.99	**3161.00**
	Basic Rate	**6033.00**							
	3% Area Weightage	**180.99**							
	Total	**6213.99**							
33	100 mm and down nominal size (RDWS SR 2019-20,P No.I item No 23)								
	For Water Recharge Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
						Total	**4.07**	**1017.25**	**4140.00**
	Basic Rate	**987.62**							
	3% Area Weightage	**29.63**							
	Total	**1017.25**							
34	40 mm nominal size stone aggregates ((RDWS SR 2019-20 P No I item No 25)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
	Filter media around rings		6	3.14x1.4	0.40	2.70	7.12		
						Total	**11.19**	**1124.17**	**12581.00**
	Basic Rate	**1091.43**							
	3% Area Weightage	**32.74**							
	Total	**1124.17**							
35	20 mm nominal size stone aggregates ((RDWS SR 2019-20,P No I item No 28)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
						Total	**4.07**	**1124.17**	**4575.00**
	Basic Rate	**1091.43**							
	3% Area Weightage	**32.74**							
	Total	**1124.17**							
36	6 mm nominal size stone aggregates ((RDWS SR 2019-20,P No I item No 31)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.60	4.07		
						Total	**4.07**	**1124.17**	**4575.00**
	Basic Rate	**1091.43**							
	3% Area Weightage	**32.74**							
	Total	**1124.17**							
37	KSRB 2.6: Providing and filling sand (RDWS SR 2019-20,P No II.item No 2d 51)								
	RCC Pits,	Cum	6	3.14x1.20x1.20/4		0.50	3.39		
						Total	**3.39**	**1731.38**	**5872.00**
	Basic Rate	**1680.95**							
	3% Area Weightage	**50.43**							
	Total	**1731.38**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
38	Supplying & errection of RCC rings for well steining of 0.3 Mtr Depth using M-20 grade concrete using clean graded granite or trap or jelly of approved quality 20mm and down size well compacted including centering, formwork and plastering for both faces with C.M 1:3 proportion as per design using 6.50mm M.S. coil at the rate of 10 Kgs/ring including cost of steel and fabrication, bailing out of water, errection etc., complete. For 1.20m dia (clear) rings of steining thickness 0.075mm upto 18 M depth(RDWS SR 2019-20Pg No.08 I No.11.20.3)								
	RCC Pits,	Each	60				60.00		
						Total	**60.00**	**1142.27**	**68537.00**
	Basic Rate	**1109.00**							
	3% Area Weightage	**33.27**							
	Total	**1142.27**							
39	KSRB 7.9 : Providing and fixing M.S.grill work for windows and ventilators weighing 21kg/sqm using M.S. flats, or M.S. square rods, or combination of M.S. flats and square rods as per approved design, drawing including cutting steel sections and welding the same to required pattern with a coat of red lead primer, cost of materials, fixtures, labour and HOM complete as per specifications. Specification No.KBS 7.12 (p.g No 34.item No 7.9)								
	RCC Pits,	Kgs	6	3.14x1.20x1.20/4			6.78		
							6.78		
						Total=1.13 x21kg/sqm	**23.73**	100.70	**2390.00**
	Basic Rate	**95.00**							
	6% Area Weightage	**5.70**							
	Total	**100.70**							
	BESCOM Charges	**Nos**	6				**6**	**20000**	**120000.00**
								Total of Other SR Items including GST Unit Rate	**120000.00**
								Total of PRED 19-20,Electrical SR 19-20,PWD SR 2018-19 Items	**6016763.00**
								Sub Total	**6136763.00**
								Add 12% GST for PRED 19-20,Electrical SR 19-20,PWD SR 2018-19 Items	**722012.00**
								Total	**6858775.00**
								Add 1% DPR charges	**70000.00**
								Add 1% PMC charges	**70000.00**
								Miscellaneous and Unforeseen charges	**1225.00**
								Grand Total	**7000000.00**

CERTIFICATE:

1) The work spot has been inspected and found to be necessary

2) The work spot comes under B.B.M.P

3) The provisions made in the estimate are necessary and minimum.

4) The estimate is based on C.S.R of 2018-2019, PWD Electrical 2019-20,RDWS 2019-20, approved Rate and Issused Rates.

Assistant Engineer
BBMP

Assistant Executive Engineer
BBMP

Executive Engineer
BBMP

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